

MBA-HK Master of Business Administration

**DISSERTATION - A STUDY OF THE SELECTION FACTORS ON
VIRTUAL BANKING AMONG HONG KONG CUSTOMERS**

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Declaration/Statements page

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ABSTRACT

The purpose of this study is to identify customer consideration in virtual banking by customer satisfaction, a desirable experience, rewarding loyalty to the customers is by providing better rates and more innovative forms of returns on investment in Hong Kong. To examine the relationship of those factors affecting customers' choice on the key variables such as convenience to use, service charges, bank branding/security, and trend of virtual banking to use for their virtual banking selection. The study examine using a qualitative research method involving data collection, which contributed to answering the research questions and the hypothesis. The hypothesis were formulated based on the mentioned key variables. To propose the recommendation for marketing action, for instance to promote digital banking trends and practices by using innovation websites, mobile applications and ease of access to obtain financial services.

The E-commerce business has been transformed by Internet banking (Sleimi& Musleh, 2020). For banks, the most significant advantages of this new type of banking are the considerable cost savings and increased efficiency in the transaction, delivery of services and products, and communication. Conversely, it has increased competition between banks and made it easier for customers to compare offers from other banks. Customers' expectations of excellent services and products tend to rise due to this "frictionless commerce," making them more likely to switch service providers if they do not get the satisfaction they may need.

In regards of findings, Hong Kong has long been regarded internationally as a major financial hub (Sleimi& Musleh, 2020). Digital banking services rapidly continue to gain popularity, aided by the fact that there is free internet access to the entire populace (Sleimi& Musleh, 2020) of Hong Kong and high smartphone penetration, as evidenced by the growing use of banking and finance-related apps. Figuratively, there is approximately 89% online penetration of finance-related applications and banking applications in Hong Kong (Cheng et al., 2006). It is therefore important to determine the extent of customer consideration in virtual banking in Hong Kong. For example, ZA Bank pioneered the daring journey of adopting virtual

banking, thus becoming the first in Hong Kong's virtual banking history. ZA continues to spearhead a competitive position (Cheng et al., 2006), with the highest infiltration level in Hong Kong.

In addition, this paper seeks to determine with profundity the virtual banking policies and strategies concerning customer considerations and comparison to the traditional financial system in Hong Kong. It needs to note, technological advancements in the banking sector are increasingly embraced in the banking sector hence the creation of virtual banking (Liao & Cheung, 2003) primarily as a need to satisfy customers at the comfort of every place of banking operations and transactions. Essentially, this calls for a changed attitude to embrace virtual banking technologically innovative systems as projected in the adoption, use and application of FinTech in HKMA (Tsui et al., 2019). This study also considers an analysis of the effects of virtual banking on customers' lives along with major hard caps the customers face in embracing virtual banking.

However, this research paper is limited to the above deliverables and shall not exceed the factors of adoption of virtual banking along with determinants influencing the adoption of virtual banking. Furthermore, the research will not dwell on the guidelines, rules and regulations and terms of operation of virtual banking as set out by the Hong Kong Monetary System. Lastly, the extent of legal policies and ethical considerations in the day-to-day running of the bank between the customers and the banking system will not be looked into unless. In this view and the extent, applicable legal policies and ethical considerations shall only be highlighted where necessary.

Keywords: Convenience to Use, Service Charges, Bank Branding/Security, Trend of Virtual banking

CHAPTER ONE: INTRODUCTION

1.1 Background

On 29 September 2017, The Hong Kong Monetary Authority (HKMA) today unveiled a number of initiatives that prepare Hong Kong to move into a New Era of Smart Banking (HKMA, 2017). One of these was the introduction of new 'virtual banking' licenses for non-traditional financial services providers to enter the Hong Kong banking sector without the requirement of physical branches. The HKMA received over thirty applications; eight licenses were granted in the first two quarters of 2019 (PWC, 2019). They are Airstar Bank Limited, Ant Bank, Livi Bank Limited, Fusion Bank, Mox Bank Limited, Ping An OneConnect Bank, WeLab Bank, ZA Bank Limited.

A virtual bank primarily offers the services of retail banking via the internet or electric channels, concerning banking, application of internet-based banking as opposed to traditional banking mechanisms to provide services to consumers to whom key features are personalized to satisfy their primary and secondary needs (Liao & Cheung, 2003). More specifically, one of the most crucial benefits of virtual banking is a reduced cost of transaction which is lower than the cost of transaction via Automated Teller Machines to an estimation by five times. Also, it is 25 times (Feliciano, 2018), more affordable compared to branch transactions.

Concerning globalization, there has been a hastened competition in the banking industry which brought about the need to embrace and adapt to various technological changes regarding banking (Feliciano, 2018). Similarly, customer behavior about new banking technologies has seen the banking sector adjust to 24 hours of operation (Lai, 2018), aided by virtual banking. The Hong Kong Monetary Authority considers that the inclusion of virtual banks will have consequently resulted in the promotion of fintech and innovations and presenting customers with a new experience (Tsui et al., 2019).

Among eight virtual banks is a competition for Hong Kong's HKD 373.9 billion commercial, annual, and corporate banking revenue pool (Feliciano, 2018). Four virtual banks

are steadily competing and leading the market share in terms of lending and deposits by a combined 54% and 62%, respectively (Feliciano, 2018). In this sense, therefore, customer needs and expectations are a crucial factor in determining not only the profitability of virtual banking but also the trend of future banking.

In recent years, it has been clear that the Internet will play an increasingly important role in banking service delivery. Several researchers have examined the advantages of web technology for businesses regarding information provision and service delivery (Esmaeili et al., 2021). Web technology can contribute to and result in the facilitation and automation of banking transactions, allowing for more prompt service delivery to clients (Esmaeili et al., 2021). Many financial organizations are already adopting Internet services, and electronic service is becoming a popular way for financial service providers and their users to engage more easily. By removing geographical, legal, and industrial constraints (Esmaeili et al., 2021), technology advancement in the electronic channel of service delivery has given enterprises a level playing field. Virtual banking came about as a possible option to counter commercial banks as a cost-cutting measure, but it has since evolved into a crucial requirement for modern banking (Oliveira et al., 2019). Customers and other banking entities are increasingly embracing and adopting digital banking trends and practices due to the speed, ease of access, and convenience that come along with virtual banking.

The concept of using electronic networks to conduct internet banking transactions is most useful in the informational age (Vyas & Butakhieo, 2020). Internet banking is the most current method of delivering financial services and products and has been adopted by most of the population of Hong Kong for business transactions (Vyas & Butakhieo, 2020). Consequently, customers who use virtual banking have the ability and the advantage to access a wide range of banking services. Payment of bills and invoices, loan applications, loan instalment settlements, account transfers, and sending payments to third parties via e-mail or internet connections (Oliveira et al., 2019), irrespective of the client's location. Internet banking is the most cost-effective and least expensive channel, resulting in a significant

reduction in human resources (Lai, 2018). The banking sector does not need to hire many people to complete and monitor customer transactions and online banking activities. Virtual banking must serve to an end, in which case it satisfies customer needs. Hence, the customers are looking for a secure, stable, and user-friendly virtual banking options. About e-commerce businesses, it is for virtual banks to put in place customer-oriented strategies, terms and conditions (Lai, 2018). This ought to include but is not limited to how the customers are guaranteed safety in the incident of system failure, security breach, among other factors.

1.2 Research Issues

This paper seeks to give a critical analysis of the customer consideration in virtual banking. Some key questions arise after reviewing previous literature related to customer consideration in virtual banking, beliefs regarding loyalty, and evidence from new studies. Such questions include; Will client's defect because of the growing usage of Internet banking combined with enticing offers from new banking competitors? Is the Internet a boon to banking loyalty? Will the increasing use of Internet banking make it even more critical to keep track of your finances or improve client retention? Does online banking have no impact on customer loyalty? Is it true that clients who exclusively use the Online bank are less loyal than those accustomed to using both the Internet and the branch? These and many other questions are of interest in the study of customer consideration in virtual banking.

1.3 Research Objectives

1. To identify the factors affecting customer's choice
2. To examine the relationship of those factors affecting customer's choice
3. To propose the recommendation for marketing action

1.4 Research Questions (RQ)

RQ1: Convenience to use is an important factor affecting customer's choice

RQ2: Service charges is an important factor affecting customer's choice

RQ3: Bank Branding/Security is an important factor affecting customer's choice

RQ4: Trend of Virtual Banking is an important factor affecting customer's choice

1.5 Contribution of the Research

This research study is of great significance in the banking industry, especially considering the technological advancement and innovative systems in the banking and business industry. Findings from this study can be unequivocally used to formulate customer consideration and financial models purposely to progress the liquidity and profitability position of the virtual banks.

In addition, these findings can successfully be used by the finance departments of the government to formulate key legislations, statutes and regulations which would be necessary for governing the running of the day-to-day banking industry. It is essential to mention that other researchers, particularly in banking, can also use these findings for analysis and comparative studies. According to Lai (2018), investors in the banking and business industries would consider these findings before jumping to invest. Consequently, it helps them ascertain the most significant customer considerations to evaluate capital appraisal while avoiding distortion arising out of lousy investment projects.

1.6 Chapter arrangement and key findings

Chapter 1: Introduction

This study forms the basis of the study as it introduces the key problems for research. A detailed analysis of the problem is discussed through the background of the study. Research objectives, research framework and procedure for the study are presented.

Chapter 2: Literature Review

Chapter two reviews the available literature in relation to the objectives and the variables of the study.

Chapter 3: Research Methodology

This chapter presents the difference between quantitative research and qualitative research (Raimo Streefkerk, 2019). To explain the methods of data collection, sampling and data analysis. Validity, reliability and limitation of the study are also presented in this section.

Chapter 4: Analysis and Results Discussion

This chapter presents descriptions of the data based on the response rate, and demographic information on the respondents. An in-depth analysis through correlation, regression is done in this chapter. The key objective is the analysis is to test relationship of the variables and the hypothesis.

Chapter 5: Conclusion and Recommendations

This chapter presents the conclusion based on the results of the hypothesis and the reviewed literature. It discusses the key findings of the results of hypothesis testing. Moreover, recommendations are made for future studies in the selection factors on virtual banking among Hong Kong customers. Limitations of the study marks the end of the study, it describes that challenges that were faced in the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Research Focus Areas and Outcome

The most significant purpose of the literature review gathered and used during the conduction of this study is to assist in identifying, examining, scrutinizing and above all, studying existing information and data that would aid in answering the research as mentioned above questions. The literature review provides data and information on customer consideration, which helps understand through critical analysis of the stated problem as presented by other authors, scholars, and researchers. Essentially, this chapter is crucial in reviewing existing literature and body of knowledge as found in articles, books, journals explaining particulars and details about customer consideration in virtual banking in the banking and market industry of Hong Kong.

In their research, Einarsson and Sjödin (2002) conducted a quantitative study to see if customers' perceptions of the bank have changed since they began using the Internet. They come to the conclusion that their respondents' relationships with their banks had not changed since they began using Internet banking instead of branch banking (Jansson & Letmark, 2005). The study of Jansson & Letmark (2005), forms a leading basis for consideration in the migration from traditional banking to virtual banking both to the customers and the virtual banks.

While reviewing the literature of scholar activities, certain key revelations are dominant as other scholars have acknowledged them. Themes across literature attest that there has been a substantial amount of concern about customer consideration concerning virtual banking in Hong Kong. Several virtual banks are steadily striving to compete and increase their online presence in the market to attract customers. As a result, the need to consider customer expectations has been a critical factor in the day-to-day running of the banking investment. One other key revelation is that traditional banks are striving to compete with

virtual banks. This has increased the need to innovate systems and incorporate customer needs and expectations to stay relevant in the market industry before being taken over by the virtual banks (Liao & Cheung, 2003). Several factors of concern in the customer's perspective about the market structure include security issues, financial services and customer control, were critically analysed.

Various academics have attempted to comprehend the significance of innovation as well as discover probable adoption difficulties. Previous literature establishes a comprehensive framework for identifying potential sources of innovation adoption resistance. Psychological and functional obstacles have been identified as the two basic barriers (Gupta and Arora, 2017). Usage barriers, value barriers, and risk barriers are examples of functional obstacles. According to Gupta and Arora (2017), traditional and image barriers are examples of psychological barriers. When an innovation needs customers to make major adjustments, and those changes are seen as disruptive by customers, functional barriers consequently arise.

One of the most crucial needs of the customers in the digital age is banking and the traditional way of needing a bank. By far and large, the changes in the technological era have called for the banks to fight indomitably for their positions in a highly competitive banking environment (Siu et al., 2005). Therefore, the major challenge posed in this information era is for the virtual banks to achieve their stated goals, find innovative ways to attract and maintain customers, and the challenge to remain a key player in the banking industry amidst all these.

Notably, virtual banks have also brought about integrated solutions customized concerning how a customer lives or spends (Eppie, 2007). Moreover, the integrated solutions may contain multiple answers to one area of the question; therefore, a virtual bank customer has many options to weigh and choose from. In Hong Kong, provision of integrated (Siu et al., 2005) solutions has contributed to and resulted in the fast-growing numbers of customers adopting virtual banking instead of traditional banking. This study also established the fact that this personalized information regarding saving and spending habits are only beneficial to the customers and only involve choices that they would make to help them spend and save well.

This strategy attracts new customers and helps the virtual banks retain the old customers. Also, this is one way of calling for customer loyalty.

The study did establish that in the delivery of services in virtual banking, the quality of service is a major consideration in customer loyalty (Cheng et al., 2006). This is because virtual banking involves very low or zero personal contact; therefore, the virtual banks consider providing quality internet services as the only way to win and maintain the customer's loyalty (Cheng et al., 2006). High quality of service is likely to result in high attraction and maintenance of the customers.

Virtual banks have brought about convenience in the delivery of services which has been key in motivating several customers to adopt and invest in virtual banking instead of traditional banking. According to (Siu et al., 2005), the virtual banks have considerably created a satisfactory service fee that virtual bank customers find easy to cope with over a particular period, thus investing in virtual banking. In a survey conducted by Lee (2021), 80% of the customer population has considerably benefited from the adopted virtual banking in Hong Kong.

It has been revealed that in online banking, information both from the customers and the banks are updated in real-time and at specific times, including an update to the bank's systems (Siu et al., 2005). One of the most outstanding characteristics of virtual banking is that information entered from the customer's side is automatically updated. This helps in the sense that future transactions or payments can be planned automatically without constantly entering new data into the new system.

Customized characteristics or features of internet banking such as personalized messages, self-service, and informational features play key roles in virtual banking in attracting new customers and retaining the customers (Eppie, 2007). In addition, greater use of virtual banks in banking creates a chance of decreasing identity fraud. Primarily, identity fraud is reduced in the sense that different and multiple account transactions can be verified and checked frequently and easily by the virtual bank's customers (Eppie, 2007). Easy

verification of bank transactions at the customer's comfort gives them an easy task of constantly checking and monitoring, for example, their account balances and spending patterns; this monitoring helps them make better decisions regarding spending habits and investment activities.

Market surveys have formed a very challenging part of virtual banking, in which case it is used to create and design the virtual bank (Liao & Cheung, 2003). Engagement in advertising agencies is mainly designed and tested among virtual bank users. In this respect, customer opinions are therefore sought by spontaneous recommendations and opinion rolls (Chan, 2001). Along with opinion roles is also the continuous competition surveillance.⁵

According to the survey statistics conducted by Cheng (2006), 90% of the respondents agreed that the customer-oriented policy implemented by the virtual banks has led to the adoption and, consequently, the acceptance of virtual banking. Regarding a total population of 90% of the respondents, approximately 51% strongly accepted and 39% accepted that the customer-oriented privacy policy implemented by the virtual banks has led to the adoption and subsequent use of internet banking (Cheng et al., 2006). It is also important to mention that 10% of the respondents in that survey had different opinions about customer-oriented privacy policy. From this survey, it was determined that indeed customer-oriented privacy policy as a means of customer consideration in Virtual banking in Hong Kong results in the acceptance, adoption, and subsequent use of virtual banking, according to the survey report. About the Technology Acceptance Model (TAM), perceived usefulness is a crucial belief that is key in considering a customer's acceptance and adoption of information systems (Cheng et al., 2006). In this respect, virtual banking only makes sense to the customers if at all the virtual banks will give a guarantee that personal information, including spending and saving habits and banking transactions, are kept private.

Information is kept private and confidential. In this sense means any activity that includes to a track of a customer's financial profile and an impermissible invasion of privacy, including access by third parties (Cheng et al., 2006). Such a move is strongly prohibited in

virtual banking and generally in the banking industry. Worth mentioning is the fact that the virtual banks can easily improve the situation of the customer's privacy concerns by developing a secure and trusted atmosphere that can be used for online transactions more essential when the privacy practices adopted by the bank are displayed in the virtual bank's website (Cheng et al., 2006).

Consent in the online storage of data as a customer consideration in virtual banking in Hong Kong is of great relevance. Virtual banks in Hong Kong are subject to internationally accepted privacy protection guidelines that are further embraced as a means of good practice and increase transparency (Zavareh et al., 2012).

Resultantly, virtual banking is experiencing rapid growth in the number of people and investors doing banking with them. According to Feliciano (2018), 80% of Hong Kong customers have adopted virtual banking and are benefiting from the virtual banking system.

2.2 Convenience to use

This study find out that convenience to use and customer loyalty are in close relationship with the extent of customer consideration in virtual banking. Customer loyalty in virtual banking is more often seen depending on how long a given customer uses a particular service or product (Esmaeili et al., 2021). The use of the Internet as a banking channel has altered some of the previous prerequisites.

Customer loyalty is a significant factor for virtual banks in developing long-term goals (Esmaeili et al., 2021) future and prospects. In this respect, virtual banks have an opportunity to consider customer loyalty by putting much focus on the goods and services most preferable to the customers after evaluating a series of customer purchases. It is worth mentioning that customer satisfaction serves as an intermediary point in defining the service quality on which the service quality is dependent. The intermediary position is, therefore, a connection between customer satisfaction and loyalty. Essentially, it is easy by way of virtual banking for a

customer to predict their account balance and the progress towards a given customer's monthly savings target. Democratizing financial services also entails the virtual banks offering advice pertinent to spending and outgoing patterns and investment patterns that best suit a given customer in terms of their goals (Siu et al., 2005).

One of the key revelations in this study is that while traditional banks are still focused on channels and products, virtual banks seek customers whose main want is integrated solutions (Eppie, 2007). Virtual banks are focused on the need to achieve customer satisfaction by meeting all their expectations and needs under one platform (Eppie, 2007). Virtual banking customers are seen to be in need of a seamless experience. Financial and other market-related financial institutions have all seen the need to embrace digital transformation as a key approach in giving the customers a deserved satisfaction in the banking industry (Zavareh et al., 2012). Such a move includes a divert approach from a product-centric approach that gives the virtual bank customer the central focus of the business; therefore, they easily assume control of their banking (Zavareh et al., 2012). Other important factors for consideration in the acceptance and adoption of virtual banking, are the place and time flexibility of the innovative systems so that the customers can enjoy a smooth transaction because virtual bank users do not have to adopt the traditional banking method that involves going to the banking and sometimes queuing to get bank services (Cheng et al., 2006). The ease of access creates convenience because the customers have the liberty to access banking services irrespective of their physical locations. Virtual banks can cross-sell financial products, for instance, credit cards, savings deposits, loans, and travel insurance based on customer's behaviour patterns and needs.

Customer considerations are also seen in providing new applications and services developed in the banking system for digital applications (Sze-Lok & Hoi-Yan, 2001). This is a customer-orientated strategy, in which case the banks offer necessary tools which can be used at a personnel level to understand and control transactions satisfactorily. User-friendly tools such as synthetic records show transactions conducted by a particular customer, graphs,

statistics and card management, and other tools. The second consideration that favours the customers is the tool that provides new services such as recurrent bill transactions, exchange, deposits, online assistance, direct debit, a long-standing order, among other new services.

The customers' ability to access online personal financial management along with increased financial literacy provides the customers of virtual banks with an opportunity to readily acquire information via access to certain key features (Wan et al., 2005), which influences their understanding of their current financial position. Also, it enables them to critically analyse incomes as well as expenses, ability to control the expenses, forecast incomes and to be able to set up budgets easily (Sze-Lok & Hoi-Yan, 2001). Lastly, personal financial management (PFM) also allows the virtual bank users to set up alerts that enable them to get data on (Feliciano, 2018) spending categories, net worth, saving goals and most importantly, spending analysis.

Virtual banks have had the advantage of a 24-hour operation in the banking business, resulting in easy accessibility, fast services, and potentially low costing. Concerning the current digital era, or rather an information age, banks are coping with the fact that customers are steadily bolting toward the inevitable need for banking instead of the traditional need of banks (Sze-Lok & Hoi-Yan, 2001). On the one hand, it poses a challenge and a threat to the banks as it is not clear nor specific their position in the business and market industry.

One of the advantages is that the virtual banks can more quickly determine client demands, needs, and expectations since the consumer have greater control over the services they receive over the Internet, which allows the bank to track customer behaviour (Siu et al., 2005).

2.3 Service Charges and financial related

Virtual banks are more focused on satisfying the need to introduce technology that is easily affordable and less costly to the customers. The customers are likely to find more

flexibility in their operation systems (Zavareh et al., 2012). Every transaction via the Internet is also less expensive than, say withdrawals or cheques.

Notably, virtual banking in Hong Kong is seen to have created satisfactory service fees, which several customers enjoy within a given period (Lai, 2018). Many customers are attracted to virtual banking because of the provision of affordable fees.

While virtual banking seeks to promote financial inclusion, the Hong Kong Monetary Authority maintains that all virtual banks ought not to subject customers to low balance fees and any minimum balance requirements. This way, the customer is seen to be protected from exploitation by the virtual banks.

2.4. Security

One of the critical areas of concern to customers of virtual banks falls in security issues, as has been brought about as a predominant factor in the literature review. The primary hard cap to the digital channel in the area of online or digital banking security concerns (Liao & Cheung, 2003). Converse to the fact that technology has brought about solutions to security concerns, many customers still fear online banking and transactions (Liao & Cheung, 2003). On the other hand, security is a critical component of the virtual bank's systems in Hong Kong (Chan, 2001). Customers are inherently drawn to virtual banking because of the strong security measures outlined in its system, even though it is not yet a justification for many customers.

To actively engage customers, banks have changed with the ever-changing technology, and as such, they have come up with innovative systems and enhancements in digital banking (Wan et al., 2005). This is consistent with the findings of Lai (2018) that Such enhancements are aimed at creating personalized offers so that the banks engaged in virtual banking can remain competitive in the banking industry. In other words, to stay competitive, virtual banks are obliged to adapt to new customer demands and needs.

Need to note, virtual banking primary supposedly requires a less physical need for personnel (Wan et al., 2005). Critically, this creates two major issues for consideration to the virtual banks. There arises a challenge in understanding customer needs together with minimized personalized services. Through the digital operation of banking, the central part of the banking activity faces the challenge of distance operation and non-personal communication (Tsui et al., 2019). This creates the need for suitable applications, policies and strategies to attract more customers to get unique advantages.

Virtual banking in Hong Kong is now considered one of the most effective financial systems in the business and market industry of Hong Kong (Lai, 2018). Virtual banks have considered the use of personalized customer experience. Artificial intelligence (AI) and Big data allow the banking sector (Wan et al., 2005), giving the banking sector the ability to offer customers a highly personalized digital experience from the virtual banks.

The policy of customer-centric is a critical differentiator in virtual banking (Wan et al., 2005). These virtual banks have responded dynamically to the expectations and needs of the customers. According to (Lai 2018), personalized policies contribute to a personalized experience that serves as a critical differentiator in acquiring new customers and retaining all possible loyal customers to a particular virtual bank.

Because of the technical capabilities afforded by the banking system, customers have established a higher level of trust in virtual banks (Lai, 2018). Virtual banks have put money into a technology approach to improving the customer segmentation system, resulting in more effective client participation in structural market systems (Lai, 2018). According to Wan (2005), investment in trading bricks in the virtual banks of Hong Kong has resulted in the creation of financial opportunities for several customers, in which case they can purchase different products while at the same time acquiring services offered by the virtual banks.

Implementing a virtual banking system by the Hong Kong Monetary Authority has had an indomitable repercussion on the customer's financial literacy and financial discipline (Feliciano, 2018). While it is true that virtual banking in Hong Kong has met the standards of

digital financial inclusion, its adoption stands out as one of the significant leading factors of financial systems used by a majority of customers today (Sze-Lok & Hoi-Yan, 2001). The services mentioned above, for example, digital financial inclusion services, have attracted several people to seek the services of virtual banking as a whole in Hong Kong.

About the extent of customer consideration, one of the most significant measures in virtual banking that has been implemented in the market and business systems of Hong Kong is the democratization of financial service institutions (SZE-LOK & HOI-YAN, 2001). This has contributed to customers' rapid motivation and needs to actively take part in the financial service and product delivery system. According to Feliciano (2018), over 89% percent of the online penetration rate of related financial applications and banks and, more particularly, 80% of banking customers have registered for the virtual banking system. This is consistent with the findings of Lai (2018), that mobile banking stands out as one of the democratizing financial services.

Customer consideration in virtual banking is also exhibited in the appeal to address cybersecurity, data privacy and, more importantly, the ability to adopt a promising cloud strategy (Liao & Cheung, 2003). This is an essential aspect of virtual banking because it does away with several security concerns regarding the safety of virtual banking. Ultimately, Chan (2001) avers that cybersecurity and data privacy assurance is an attractive package to the customers embedded as elements of crucial consideration in virtual banking.

2.5. Bank Branding

One of the key revelations of this study is that virtual bank customers prefer an online banking system that is strongly integrated and with proper security mechanisms. Notably, the customers have had a sense of satisfaction with bank branding as far as security concerns. A strong security mechanisms has helped the virtual banks build an identity in the financial sector.

Aside from the fact that customers might choose to run away from a given bank due to dissatisfaction, it is important to mention that customer satisfaction in itself is not enough to rely on it as an assurance or means to customer retention. According to Donald (2020), satisfied customers can still leave if a competitor's offer convincingly lures them. It is likely that, on the one hand, a dissatisfied may exhibit patronage if at all they are not expecting better alternative suppliers (Oliveira et al., 2019). On the other hand, a satisfied customer is likely to patronize alternative suppliers in the hope of receiving more satisfying results. In fact, leading bank will able to capture a meaningful revenue opportunity, with a long-term profitability hinging on their ability to rapidly amass a sizeable customer base.

According to Donald (2020), changes in the companies offers or in the customer's life and sometimes changes in the competitor's offers are considered key factors necessary to influence spending patterns compared to the consideration of customer satisfaction in itself (Sleimi & Musleh, 2020). Consequently, virtual banking sector needs to create a relationship between the bank and the customers to feel they are accorded a superior value. Moreover, there is a need to fight for the customers to stay in contact with them so that the banks do not lose out on them, resulting in losses and even a possible closure (Liao & Cheung, 2003). This calls for an in-depth consideration of customer needs and expectations to fully satisfy them so that while attracting new customers, the former ones are retained. Also, it helps the banks to compete actively in the banking and market industry of Hong Kong.

Dissatisfaction arises in virtual banking when the customers meet technological challenges, which may contribute to and result in a negative attitude or perception of a bank's functional quality of service (Mohamad et al., 2017). It is also likely that dissatisfaction may be brought about by service design problems and technical design problems. The above mentioned technological issues include difficulty navigating the online system, systems being too slow, and sometimes users find it inherently difficult to log off the online service systems.

It is worth mentioning that virtual banks are utilized to their full advantage when customers' expectations, needs, (Mohamad et al., 2017), and preferences are considered

when designing the technological and functional features of the virtual banks. Regarding this consideration, the virtual banks need to include the customers or users in the design regarding internet use (Vyas & Butakhieo, 2020). Most customers who are dissatisfied with the design of the internet users choose not to raise concerns or complaints because it is inherently difficult for the banks to make any changes (Mohamad et al., 2017). For instance, in the design regarding technology.

Therefore, the banks should consider engaging the customers by asking online bank users questions regarding their services. According to Mohamad (2017), when a need arises to change or alter a service model, it can quickly be handled before it is too late. Lateness in solving such critical issues may translate to customers running from a given bank, for example, from a virtual bank to the traditional banking system.

2.6. Trend of Virtual banking

Quality of service in virtual banking is categorized into two perspectives, all of which contribute to the turnout of customers and the general performance of virtual banks (Lai, 2018). Firstly, the technological dimension of service quality is concerned with the deliverables in terms of site effectiveness, speed of response and perhaps the kinds of offer updates. Functional quality, on the other hand, defines how the type of service offered is delivered. Functional quality entails personalization of service and communication, interactive communication, and provision and availability of new innovative forms or systems that guarantee customer access. Virtual banks are forced to offer the two packages of functional quality and technical quality to customers to engage in the market competently (Tsui et al., 2019). Consequently, profitability in the banking industry, therefore, is pegged on, the consideration of the quality of service. According to Tsui (2019), a virtual bank is destined for massive failure if the two dimensions of quality of service that are technological and function are not considered accurately.

2.7 Summary

Chapter two reviews the available literature in relation to the objectives and the variables of the study. The study was done using a qualitative research method involving data collection, which by far and large contributed to answering the research questions and the hypothesis. The hypothesis were formulated based on the key variables of convenience to use, service charges, bank branding/security, and the trend of virtual banking. The hypothesis for this study included;

H1: There is a positive relationship between convenience to use and customer's virtual banking selection.

H2: There is a positive relationship between service charges and customer's virtual banking selection.

H3: There is a positive relationship between bank branding/security and customer's virtual banking selection.

H4: There is a positive relationship between trend of virtual banking and customer's virtual banking selection.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Method

Main data collection tools involved the use of close-ended and open-ended questionnaires, observations, and several interviews. The use of questionnaires was very handy in capturing the respondent's general knowledge of virtual banking, including knowledge on technological advancements, media literacy, etc. The use of questionnaires also encompassed disposal procedure-related questions to internet banking. Notably, questions to be used will be subdivided to gather data and responses to capture every bit of information necessary for the analysis of customer consideration in virtual banking. It is also important to mention that a structured questionnaire allows the respondents to provide data on every section and subsection of the study, as highlighted in the questionnaire. Capturing responses based on the four research questions of this study is handy in consideration to the research topic of customer consideration in virtual banking in Hong Kong.

When collecting data, quantitative research deals with numbers and statistics, while qualitative research deals with words and meanings. The quantitative research is used to test or confirm theories and assumptions include experiments, observations recorded as numbers, and surveys with closed-ended questions. Whereas, qualitative research is used to understand concepts, thoughts or experiences include interviews with open-ended questions, observations described in words, and literature reviews that explore concepts and theories. (Raimo Streefkerk, 2019). This research was carried out using a qualitative research method involving data collection, which contributed to answering the research questions stated in this study. Also, the qualitative approach helped in critically analysing the topic of customer consideration in virtual banking in Hong Kong. This study was majorly collected from the existing body of written literary materials, articles, journals, among other sources pertinent to customer consideration in virtual banking in Hong Kong.

There are two types of method to collect data, i.e. primary and secondary data (Douglas, 2015). The comparison of primary and secondary data (Ajayi, 2017), according to Ajayi, (2017), primary data is original and unique and is directly collected by the researchers from sources through observations, surveys, questionnaires, case studies and interviews according to the aim of the research and study requirements. As opposed to secondary data which consist of government publications, websites, books, journal articles, internal records (Ajayi, 2017). According to Valcheva (2021), secondary data represent the data or information collected for another purpose and relevant to the current research needs.

As a result, a literature review is an essential component of almost any research project. It serves as the foundation for advancing knowledge, facilitates theory development, closes mature research areas, and uncovers novel research areas (Webster and Watson, 2002).

Another research method as, Systematic Literature Review, SLR, received more attention, and initial papers created rules and suggestions on how to conduct such review articles in the field. The SLR became increasingly popular, almost even replacing traditional reviews for individual review papers in management (Jones and Gatrell, 2014). SLR as a data collection method employed in this study was quite instrumental in delivering the findings to the research as mentioned above questions of this study. The systematic review aided in comparing results in this study to past literary findings from other authors and scholars on the topic of internet banking. Coupled with other benefits, it aided in providing a comprehensive and detailed overview based on customer consideration and adoption of internet banking. More importantly, it helped analyse past literature to determine the extent of customer consideration in virtual banking in Hong Kong. The main advantages of an SLR are transparency in data collection and synthesis that results in a higher level of objectivity and reproducibility (Tranfield et al., 2003). SLR has its own limitations and contrary to traditional literature reviews, they admit to these limitations and transparently list them (Frank and Hatak, 2014). Through systematic reviews, the role played by virtual banks in considering the place of the customer in so far as virtual banking is concerned and how the relationship created

after that. Through this method, I was able to critically analyse peer-reviewed articles, journals, etc. In this respect and to the extent I applied, it was able to satisfy my research questions adequately.

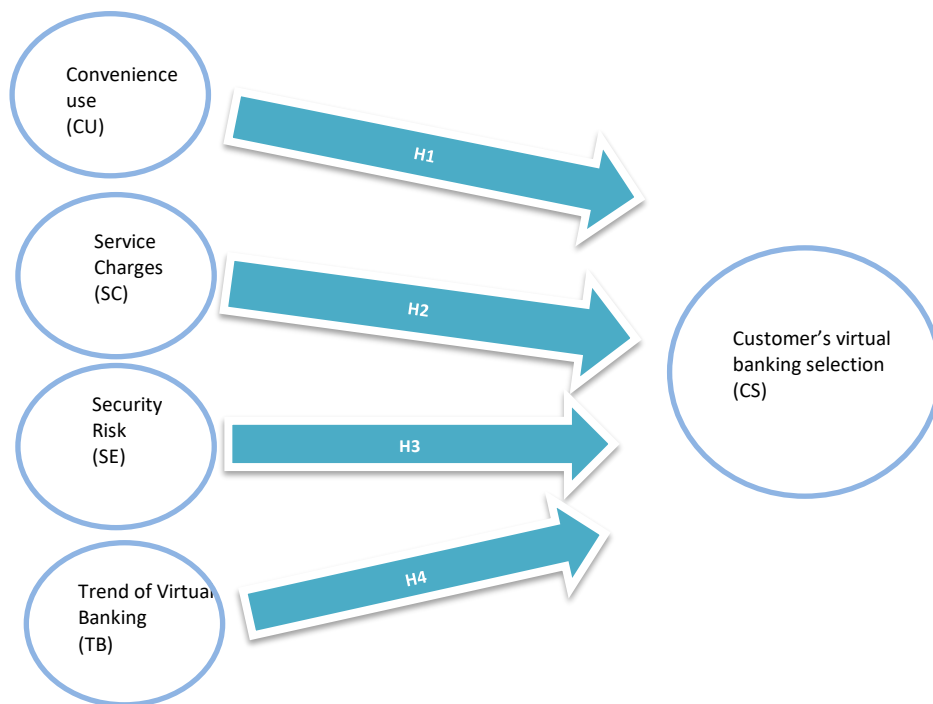
3.2 Research Framework

To identify the linkages between virtual banking and its adoption, this chapter entirely relied upon the findings in the study. Social psychology and the level of technology acceptance among the population of Hong Kong and other attitude literature were important in defining the type of data collection methods that would be used. It also included feedback by way of communication from the end user relating not only to customer consideration in virtual banking but also customer adoption of internet banking. In addition, the customer's attitude of either rejection or adoption would also be put into consideration.

Considering the high internet penetration in Hong Kong by a majority of the population, smart banking has not been launched but embraced by a majority of the populace. It, therefore, becomes a question of concern to study and identify customer considerations in virtual banking at its very onset. It is worth mentioning that the high population of Hong Kong today depends on or relies on online services, which then presents the logical question of whether they are measures undertaken to consider the customer's position. Therefore, qualitative research and a critical review of past literature would prove important, hence the choice of research methodology.

It served quite instrumentally as it provided a comprehensive and detailed overview based on the data and scintilla of evidence on customer consideration in virtual banking in Hong Kong. In addition, it helped to identify and analyse the effects of customer consideration in virtual banking in Hong Kong both to the customer and to the independent virtual banks in Hong Kong.

Besides, it laid bare how customer consideration affects customer loyalty in virtual banking in Hong Kong. Worth mentioning is that through this method, peer-reviewed articles, journals, and pieces of previously written work were critically analysed to this respect and to the extent applicable to satisfy the research questions mentioned above. This data contributes to a better understanding of customer consideration in virtual banking in Hong Kong.



Correlation analysis is useful in determining the relationship between customer consideration (independent variable) and virtual banking (dependent variable) in data analysis of the entire study. This relationship is important in determining the prospects of virtual banking in Hong Kong and the present percentages of the population of Hong Kong actively engaged in virtual banking.

Independent Variables (IV):

Convenience to use (CU)

Service Charges (SC)

Security (SE)

Trend of Virtual Banking (TB)

Dependent Variable (DV):

Customer Selection (CS)

3.3 Research Hypotheses

The research hypothesis for this study included;

H1: There is a positive relationship between convenience to use and customer's virtual banking selection.

H2: There is a positive relationship between service charges and customer's virtual banking selection.

H3: There is a positive relationship between bank branding/security and customer's virtual banking selection.

H4: There is a positive relationship between trend of virtual banking and customer's virtual banking selection.

3.4 Research Design

This study adopted a mixed method research design. Therefore, both qualitative and quantitative data was generated as it was key in understanding the fundamental problem at hand concerning virtual banking in Hong Kong.

3.4.1 Questionnaire Design

The questionnaires had both close-ended and open-ended questions. The researcher formulated the questionnaire based on the reviewed literature, hypothesis and the research questions. The use of questionnaires was very handy in capturing the respondent's general knowledge of virtual banking, including knowledge on technological advancements, media literacy.

Table 3.1: Variables Coding

Proposed Variables	Codes	Corresponding Names and Ranges in Database
Convenience to Use	CU	CU_01–CU_07
Service Charges	SC	SC_01–SC_08
Bank Branding/Security	S	S_01-S_03
Trend of Virtual Banking	TB	TB_01–TB_03
Customer Selection	CS	CS_01-CS_04

Table 3.2: Coding of 5 Variables and Source of Questionnaires

Variable	Nature	Operationalization	Sources
CU	IV	Part 2, Q8-10	Zavareh et al., 2012; Lee, 2021; Donald 2020; Tsui et al., 2019
SC	IV	Part 1, Q1-7	Cheng et al.; 2006; Chan, 2004; Esmaeili et al., 2021
S	IV	Part1, Q 11-15	Eppie, 2007; Yiu et al., 2007; Sleimi& Musleh, 2020
TB	IV	Part 3, Q16-18	Zavareh et al.; 2012; Lai, 2018; Livingstone, 2008
CS	DV	Part 4, Q19-26	Siu et al., 2005; Oliveira et al., 2019; Vyas &Butakhieo, 2020; Oliveira et al., 2019

Source: Researcher

3.4.2 Population

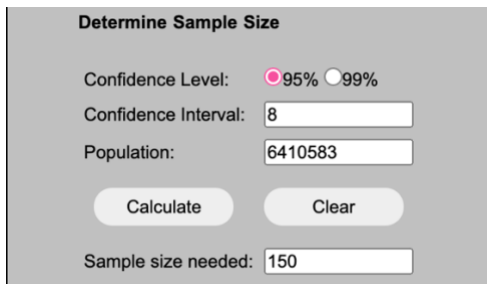
The population above age of 18 in Hong Kong is 6,410,583 (Hong Kong Population, 2021).

3.4.3 Sampling Method

The study used convenience and random sampling, where questionnaires were shared online through the Google forms. The two types of sampling were significant in ensuring that the right sample population participated in this study.

3.4.4 Sampling Size

For this study, 144 respondents participated in the questionnaires were sent online to specific people and also open on social media that any person could respond to them. This study used Creative Research Systems (1982) formula of sample size calculator as indicated below;



Determine Sample Size

Confidence Level: ☒ 95% ☐ 99%

Confidence Interval:

Population:

Sample size needed:

Source: Creative Research Systems

Confidence level: 95%

Confidence interval: 8

Population as above mentioned

Hence, the sample size needed: 150

3.5 Reliability and validity test, descriptive statistics, and inferential statistics

This study use descriptive statistics such as percentages and frequencies in data analysis. Correlation analysis was used to test the hypothesis and reliability and validity of the data was done by using the cronbach's Alpha formula.

3.6 Ethical Consideration

This study ensured that significant data about the respondents was concealed and the respondents were assured about their privacy before participating in the study. The researcher ensured open disclosure of information more specifically the use of the data generated by this study.

3.7 Pre-test

The pre-test is to ensure validity and reliability of data collection instruments, the questionnaires were pretested. A brief explanation has been sent for all respondents about the intention of the questionnaire is purely for academic purpose. There are 160 respondents have received the questionnaire and 144 questionnaires were returned for the analysis, hence 90% return rate.

3.8 Research Schedule

Table 3.3: Gantt Chart: Research Schedule



CHAPTER FOUR: ANALYSIS AND RESULTS DISCUSSION

4.1 Response Rate Analysis

For this study, there are 160 respondents in Hong Kong have received the questionnaire and 144 questionnaires were returned for the analysis, hence the return rate is $144/160=90\%$. An analysis of the online questionnaires indicated that all questions were completed by 144 respondents, as the questionnaire could only be submitted after completion, therefore the valid samples for this study are 144. The overall response rate is considered as satisfactory.

4.2 Descriptive Statistics

This section describes the demographic data for the respondents in this study. It consists of gender, age, occupation, education level and monthly income levels of the respondents.

4.2.1 Cross Description on Gender and Age Range of Respondents

Table: 4.1 Age * Gender Cross-tabulation

		Gender		Total
		Male	Female	
Age	18 or Below	12	0	12
	19-25	1	17	18
	26-35	12	25	37
	36-45	26	9	35
	46 or Above	25	17	42
Total		76	68	144

The table 4.1 indicates a total of 144 respondents who participated in this study. Specifically, 76 males and 68 females were involved hence recording an aggregation of 52.77% and 47.23% respectively. For this study, majority of the respondents were of the ages 46 or above years-old, among them 59.23% (25 out of 42 respondents) were male, 40.77% (17 out of 42

respondents) were female. The age group 26-35 years old formed the second largest group with 32.43% (12 out of 37 respondents) of male and 67.57% (25 out of 37 respondents) of female. The two groups (age 46 or above and 26-35 years) occupied 70% of the total number of respondents. The proportions for the age group of 36-45 and 18 or below are 74.28% (26 samples), 25.72% (9 samples) and 100% (12 samples) respectively.

4.2.2 Cross Description on Occupation and Education Level of Respondents

Table 4.2: Occupation and Education Levels: Cross-tabulation

	Education						Total
	Primary School	Secondary School	Certificate	Diploma	Bachelor	Postgraduate or Above	
Occupation Student	0	0	0	0	11	20	31
Professional and Manager	0	0	0	0	26	2	28
Officer	4	21	10	5	21	2	63
House Wife	0	0	7	8	0	0	15
Other	0	0	0	7	0	0	7
Total	4	21	17	20	58	24	144

The table 4.2 above indicates the occupation and the educational levels of the participants in this study. The findings indicated that majority of the respondents 43.75% (63 out of 144 samples) are officers followed by the students who accounted for 21.52% (31 out of 144 samples). The professionals and managers accounted for 19.44% (28 out of 144 samples), House wives 10.41% (15 out of 144 samples) and others were 4.86% 9 (7 out of 144 respondents) among this population 7 respondents were retired.

In terms of education, 58 of the 144 respondents have Bachelor's degree and 24 out of 144 samples have a postgraduate of above hence accounting for 40.27% and 59.73% respectively. Among this group 28 are professional and managers while 23 are officers. For

the Diploma, Certificate, High school and Primary School were of the proposition 13.88% (20 samples), 11.8% (17 samples), 14.58% (21 samples) and 2.77% (4 samples) respectively.

4.2.3 Monthly Income Level of Respondents

Table 4.3: Monthly Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	HK \$10,000 or Below	14	9.7	9.7	9.7
	HK\$10,000-HK\$15,000	19	13.2	13.2	22.9
	HK\$15,001-HK\$20,000	40	27.8	27.8	50.7
	HK\$20,001- HK\$25,000	49	34.0	34.0	84.7
	HK\$25,001-HK\$30,000	22	15.3	15.3	100.0
	Total	144	100.0	100.0	

Table 4.3 indicates that majority of the respondents 49 out of 144 accounting for 34% of the total had an income of HK\$20,001- HK\$25,000, 27.8% of the respondents (40 out of 144 samples) had an income of HK\$15,001-HK\$20,000. However, 15.3% (22 samples), 13.2% (19 samples) and 9.7% (14 samples) had an income of HK\$25,001-HK\$30,000, HK\$10,000-HK\$15,000 and HK \$10,000 or Below respectively.

4.2.4 Observation of the Response Pattern between Sample Age of Respondents and customer's virtual banking selection (Responding to Survey Question 26)

Table 4.4: Crosstabs for Sample Age of Respondents and customer's virtual banking selection (Responding to Survey Question 26)

Age Cross-tabulation

		Age					Total
		18 or Below	19-25	26-35	36-45	46 or Above	
Loyalty of customers	Strongly Disagree	0	0	4	0	4	8
	Disagree	0	0	0	0	11	11
	Slightly Disagree	4	4	0	0	4	12
	Neutral	0	13	10	24	10	57
	Slightly Agree	6	0	12	10	2	30
	Agree	0	0	9	1	1	11
	Strongly Agree	2	1	2	0	10	15
	Total	12	18	37	35	42	144
% of loyal customers –in the same age group		66. % (8out of 12)	5.55% (1 out of 18)	85% (23 out of 37)	31.42% (11 out of 35)	30. 6695% (13 out of 42)	38.35% (56 out of 144)

Table 4.4 indicates that 56 out of 144 respondents responding to slightly agree, agree and strongly agree have a feeling of loyalty to virtual banking accounting for 38.35% of the total. However, 31 out of 144 respondents responded to slightly disagree, disagree and strongly disagreed accounting for 21.52%. The findings indicate a direct relationship between the age and loyalty to virtual banking as young people of the age group 26-35 maintained highest loyalty 85% (23 out of 37), however, the lowest percentage was the age group 19-25 at 5.55% (one out of 18).

4.2.5 Observation of the Response Pattern between Sample Gender of Respondents and customer's virtual banking selection (Responding to Survey Question 26)

Table 4.5 Crosstabs for Sample Gender of Respondents and customer's virtual banking selection (Responding to Survey Question 26)

Gender Cross-tabulation

		Gender		Total
		Male	Female	
Loyalty of customers	Strongly Disagree	0	8	8
	Disagree	11	0	11
	Slightly Disagree	8	4	12
	Neutral	30	27	57
	Slightly Agree	21	9	30
	Agree	3	8	11
	Strongly Agree	3	12	15
Total		76	68	144
% of loyal customers –in the same age group		35.52% (27out of 76)	39.7% (27out of 68)	38.88% (56 out of 144)

Table 4.5 indicates that 56 out of 144 respondents responding to slightly agree, agree and strongly agree have a feeling of loyalty to virtual banking accounting for 38.88% of the total. However, 31 out of 144 respondents responded to slightly disagree, disagree and strongly disagreed accounting for 21.52%. The findings indicate a direct relationship between the gender and loyalty to virtual banking as the female had the highest loyalty 39.7% (27 out of 68), however, the lowest percentage was the male at 35.52% (27 out of 76).

4.2.6 Observation of the Response Pattern between Sample Education Level of Respondents and customer's virtual banking selection (Responding to Survey Question 26)

Table 4.6 Crosstabs for Sample Education Levels of Respondents and customer's virtual banking selection (Responding to Survey Question 26)

Education Cross-tabulation

		Education						Total
		Primary School	Secondary School	Certificate	Diploma	Bachelor	Postgraduate or Above	
Loyalty of customers	Strongly Disagree	0	0	8	0	0	0	8
	Disagree	0	0	2	0	0	9	11
	Slightly Disagree	0	5	3	0	0	4	12
	Neutral	4	10	4	8	24	7	57
	Slightly Agree	0	6	0	2	22	0	30
	Agree	0	0	0	0	7	4	11
	Strongly Agree	0	0	0	10	5	0	15
Total		4	21	17	20	58	24	144
% of loyal customers –in the same age group		0% (0 out of 4)	28.57% (6 out of 21)	0 (0 out of 17)	60% (12 out of 20)	58.62% (34 out of 58)	16.66% (4 out of 24)	38.88% (56 out of 144)

Table 4.6 indicates that 56 out of 144 respondents responding to slightly agree, agree and strongly agree have a feeling of loyalty to virtual banking accounting for 38.88% of the total. However, 31 out of 144 respondents responded to slightly disagree, disagree and strongly disagreed accounting for 21.52%. The findings indicate a direct relationship between the education and loyalty to virtual banking as the respondents with a diploma had the highest loyalty 60% (12 out of 20), however, the lowest percentage was the respondents with primary and certificate with 0% (0 out of 4) and 0% (0 out of 17) respectively.

4.2.7 Observation of the Response Pattern between Sample Income Level of Respondents and customer's virtual banking selection (Responding to Survey Question 26)

Table 4.7 Crosstabs for Sample Income Levels of Respondents and customer's virtual banking selection (Responding to Survey Question 26)

Income Cross-tabulation

		Income					Total
		HK \$10,000 or Below	HK\$10,000-HK\$15,000	HK\$15,001-HK\$20,000	HK\$20,001-HK\$25,000	HK\$25,001-HK\$30,000	
Loyalty of Strongly Disagree	customers	0	0	4	2	2	8
	Disagree	0	2	5	2	2	11
	Slightly Disagree	0	4	4	4	0	12
	Neutral	8	1	8	31	9	57
	Slightly Agree	4	11	0	8	7	30
	Agree	0	0	9	1	1	11
	Strongly Agree	2	1	11	0	1	15
Total		14	19	41	48	22	144
% of loyal customers –in the same age group		42.85% (6out of 14)	5.26% (1 out of 19)	48.78% (20 out of 41)	18.75% (9 out of 48)	40.9% (9 out of 22)	38.88% (56 out of 144)

Table 4.7 indicates that 56 out of 144 respondents responding to slightly agree, agree and strongly agree have a feeling of loyalty to virtual banking accounting for 38.88% of the total. However, 31 out of 144 respondents responded to slightly disagree, disagree and strongly disagreed accounting for 21.52%. The findings indicate a direct relationship between the level of income and loyalty to virtual banking as the respondents with an income of HK\$15,001-HK\$20,000 had the highest loyalty 48.78% (20 out of 41), however, the lowest percentage was the respondents with HK\$10,000-HK\$15,000 at 5.26% (1 out of 19).

4.2.8 Observation of the Response Pattern between Sample Occupation of Respondents and customer's virtual banking selection (Responding to Survey Question 26)

Table 4.8 Crosstabs for Sample occupation of Respondents and customer's virtual banking selection (Responding to Survey Question 26)

Occupation Cross-tabulation

	Occupation					Total
	Student	Professional and Manager	Officer	House Wife	Other	
Loyalty of customers Strongly Disagree	0	0	3	5	0	8
Disagree	9	0	2	0	0	11
Slightly Disagree	4	0	8	0	0	12
Neutral	15	7	25	10	0	57
Slightly Agree	3	19	6	0	2	30
Agree	0	2	9	0	0	11
Strongly Agree	0	0	10	0	5	15
Total	31	28	63	15	7	144
% of loyal customers –in the same age group	9.67% (3 out of 31)	75% (21 out of 28)	39.68% (25 out of 63)	0% (0 out of 15)	100% (7 out of 7)	38.88% (56 out of 144)

Table 4.8 indicates that 56 out of 144 respondents responding to slightly agree, agree and strongly agree have a feeling of loyalty to virtual banking accounting for 38.88% of the total. However, 31 out of 144 respondents responded to slightly disagree, disagree and strongly disagreed accounting for 21.52%. The findings indicate a direct relationship between the occupation and loyalty to virtual banking as the respondents with other professions had the highest loyalty 100% (7 out of 7), however, the lowest percentage was the respondents were housewives at 0% (0 out of 15).

4.3 Inferential Statistics

Statistical inference is the process of using data analysis to infer properties of an underlying distribution of probability. Inferential statistical analysis infers properties of

a population, for example by testing hypotheses and deriving estimates. It is assumed that the observed data set is sampled from a larger population. (Wikipedia, 2021). The questions of this study are according to respective variables including CU, SC, S, TB and CS.

4.3.1 Reliability and Validity Measurement

Table 4.4 (a): Reliability Statistics of Variable Convenience to Use

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.888	.890	7

This study relied on seven items that focused on examining the opinions on convenience to use as presented on table 4.4 (a). The analysis indicates a Cronbach's Alpha of 0.888 which is greater than 0.7 an indication that the set of the items are consistent and highly reliable.

Table 4.4 (b): Item-Total Statistics of Variable Convenience to Use

Item-Total Statistics					
	Scale Mean if Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Price is lower than average	25.49	12.615	.818	.846	.854
Price is most likely low	25.39	13.092	.746	.884	.865
Expectation are very high	25.47	12.838	.806	.870	.855
Price is most likely lower	25.12	15.657	.627	.625	.879
Services have good value	25.08	15.699	.647	.777	.877
Prices are fair	25.12	15.886	.581	.609	.883
Services are economical	25.04	15.970	.607	.766	.881

Table 4.4 (b) above indicates that the amended alphas if one of the items is deleted are within the margins of more than 0.7 hence are acceptable.

Table 4.4 (c) Item-Total Statistics of Variable Service Charges

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.893	.896	7

This study relied on seven items that focused on examining the opinions on service charges/costing as presented on table 4.4 (c). The analysis indicates a Cronbach's Alpha of 0.893 which is greater than 0.7 an indication that the set of the items are consistent and highly reliable.

Table 4.4 (d): Item-Total Statistics of Variable Service Charges

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Modern	25.94	10.151	.736	.771	.874
Old-Fashioned	25.97	10.230	.615	.671	.886
Dull	26.09	9.327	.791	.838	.864
Interesting	25.92	10.441	.660	.788	.882
Unappealing	26.09	9.285	.760	.820	.868
Appealing	26.18	9.058	.705	.719	.878
Economical	26.02	10.090	.612	.529	.886

Table 4.4 (d) above indicates that the amended alphas if one of the items is deleted are within the margins of more than 0.7 hence are acceptable.

Table 4.4 (e) Item-Total Statistics of Variable Security**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.861	.863	3

This study relied on seven items that focused on examining the opinions on security/ risk as presented on table 4.4 (e). The analysis indicates a Cronbach's Alpha of 0.861 which is greater than 0.7 an indication that the set of the items are consistent and highly reliable.

Table 4.4 (f) Item-Total Statistics of Variable Security**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Talk up to people	8.79	1.201	.763	.584	.781
Positive Conversation	8.76	1.290	.724	.525	.817
Speak Favourably	8.70	1.456	.735	.543	.813

Table 4.4 (f) above indicates that the amended alphas if one of the items is deleted are within the margins of more than 0.7 hence are acceptable.

Table 4.4 (g) Item-Total Statistics of Variable tTend of virtual banking**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.901	.901	7

This study relied on seven items that focused on examining the opinions on trend of virtual banking/ its development in future presented on table 4.4 (g). The analysis indicates a Cronbach's Alpha of 0.901 which is greater than 0.7 an indication that the set of the items are consistent and highly reliable.

Table 4.4 (h) Item-Total Statistics of Variable trend of virtual banking

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Feel Surprised	25.04	15.970	.764	.714	.881
Feel Angry	25.13	15.612	.857	.804	.868
Continue to use	25.03	16.272	.766	.761	.881
Wise Choice	25.11	15.680	.873	.871	.866
Wrong Choice	24.76	19.440	.591	.636	.900
Easily Switch	24.73	19.374	.631	.732	.897
Sense of Loyalty	24.77	19.842	.519	.413	.906

Table 4.4 (h) above indicates that the amended alphas if one of the items is deleted are within the margins of more than 0.7 hence are acceptable.

4.3.2 Correlation Analysis

4.3.2.1 Convenience to Use, Service charges, Bank branding/security and Trend of virtual banking and customer selection.

Table 4.9: Correlations on Convenience to Use, Service charges, Security and Virtual banking trend and customer virtual banking selection

Correlations		Mean_CU	Mean_SC	Mean_S	Mean_TB
Mean_CU	Pearson Correlation	1	.490**	.642**	.394**
	Sig. (2-tailed)		.000	.000	.000
	N	144	144	144	144
Mean_SC	Pearson Correlation	.490**	1	.686**	.460**
	Sig. (2-tailed)	.000		.000	.000
	N	144	144	144	144
Mean_S	Pearson Correlation	.642**	.686**	1	.483**
	Sig. (2-tailed)	.000	.000		.000
	N	144	144	144	144
Mean_TB	Pearson Correlation	.394**	.460**	.483**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	144	144	144	144

** . Correlation is significant at the 0.01 level (2-tailed).

The table 4.9 above presents Pearson Correlations coefficients for convenience to use, service charges, Bank branding/security and trend of virtual banking trend and customer virtual banking selection. The coefficient between convenience to use and customer's virtual banking selection is 0.394 ($r=0.394$, $p<0.05$) representing a positive and moderately strong correlation. Secondly, the coefficient between service charges and customer's virtual banking selection is 0.460 ($r=0.460$, $p<0.05$) representing a positive and moderately strong correlation. Third, the coefficient between security and customer's virtual banking selection is 0.483 ($r=0.483$, $p<0.05$) representing a positive and moderately strong correlation. Forth, the coefficient between virtual banking trend and customer's virtual banking selection is 0.434 ($r=0.434$, $p<0.05$) representing a positive and moderately strong correlation. Based on the above analysis the correlation results are statistically significant.

4.3.3 Regression Analysis

Regression analysis is one of the widely used statistical tools used to assess the relationship between an independent (Y) and dependent variables (X) included in a system (Raoof Gholami, 2017).

Table 4.10: Regression Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.852 ^a	.726	.710	.558

a. Predictors: (Constant), Mean_CU, Mean_SC, Mean_S, Mean_TB

Table 4.10 above presents the regression model summary for convenience to use, service charges, bank branding/security and trend of virtual banking and customer virtual banking selection. A positive and stronger linear relationship is presented by the correlation coefficient R under the regression model 0.852. The R square is 0.726 representing 72.6% of variation on customer virtual banking selection and can be explained by convenience to use, service charges and bank branding/security.

Table 4.11 Regression Coefficients

Coefficients^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	.624	.433		.152
	Mean_CU	.067	.031	.141	.003
	Mean_SC	.411	.141	.394	.004
	Mean_S	.465	.134	.438	.001
	Mean_TB	.174	.064	.161	.032

a. Dependent Variable: Mean_CS

Table 4.11 presents' regression coefficients on Convenience to Use, Service charges, Bank branding/security, Trend of virtual banking, are 0.003, 0.004, 0.001 and 0.032 respectively smaller than 0.05 an indication that the independent variables are reliable in the model as they as statistically significant.

4.4 Discussion and Results

4.4.1 H1-H4 Hypothesis

Table 4.12: Overall Results on Hypothesis Testing

Coded Hypotheses	Regression Coefficients	Sig.Values (p-values)	Analysis Results
H1:CU→CS	.624	.003	<u>Supported</u>
H2:SC→CS	.081	.004	<u>Supported</u>
H3:S→CS	.411	.001	<u>Supported</u>
H4: TB→CS	.465	.032	<u>Supported</u>

Table 4.5 above presents a summary of the overall results of the hypothesis testing indicating the regression coefficients and the significant valves (p-values) and the analysis results.

Table 4.13: Overall Decision Makings on Hypothesis Testing

Proposed Hypotheses	Decision
H1: Convenience to use has a direct positive effect on customer's virtual banking selection	<u>Accepted</u>
H2: Service charges has a direct positive effect on customer's virtual banking selection	<u>Accepted</u>
H3: Bank branding/security has a direct positive effect on customer's virtual banking selection	<u>Accepted</u>
H4: Trend of virtual banking has a direct positive effect on customer's virtual banking selection	<u>Accepted</u>

Table 4.13 presents the overall decision making on the hypothesis. The hypothesis H1, H2, H3, and H4 were all accepted as the significant values of all the predictor variables were smaller than 0.05.

It is jarringly clear from the revelations of the literature review that customer consideration in virtual banking in Hong Kong is a matter of great importance in the banking and business industry of Hong Kong. Often, whether a bank or any business enterprise would make profit or loses is largely dependent on the customer's question (Siu et al., 2005). Customer loyalty, satisfaction, expectations, preferences, and needs are crucial elements of virtual banking that should be considered independently while making decisions affecting a given business (Eppie, 2007). As is studied in this research work, customer consideration is the most important of strategic policies and management decisions that an online business could ever involve. This study revealed that virtual banking is rapidly growing, and many people in Hong Kong are swiftly considering its adoption. Coupled with many advantages, the rise in technology has also seen the growing number of virtual banking in Hong Kong (Siu et al., 2005), with many innovative systems in the banking business.

With the rapidly changing technology, virtual banks are anticipating more accessible financial products and services. Resultantly, virtual banks are seen to be adopting such tendencies of cutting down on unnecessary service and offering lower ticket sizes for online users. In addition, creation of innovative means of investment and returns, for instance, retail benefits, pay as you go insurances along with quick and easy loans are also provided (Eppie, 2007). Democratizing financial services also involves empowering and educating online bank customers to have considerably more control over their finances (Siu et al., 2005). A sense of greater control of one's finances is likely to draw them closer to the bank because they feel that they own their finances instead of the traditional way of static data; for instance, a customer's account balance is the same as given opportunities to purchase investment products.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

5.1.1 Discussion on Results of Hypothesis Testing (H1-H4)

Table 5.1: Overall Results on Hypothesis Testing

Coded Hypotheses	Regression Coefficients	Sig.Values (p-values)	Analysis Results
H1:CU→CS	.624	.003	<u>Supported</u>
H2:SC→CS	.081	.004	<u>Supported</u>
H3:S→CS	.411	.001	<u>Supported</u>
H4:TB→CS	.465	.032	<u>Supported</u>

Table 5.2: Overall Decision Makings on Hypothesis Testing

Proposed Hypotheses	Decision
H1: Convenience to use has a direct positive effect on customer's virtual banking selection	<u>Accepted</u>
H2: Service charges has a direct positive effect on customer's virtual banking selection	<u>Accepted</u>
H3: Bank branding/security has a direct positive effect on customer's virtual banking selection	<u>Accepted</u>
H4: Trend of virtual banking has a direct positive effect on customer's virtual banking selection	<u>Accepted</u>

In conclusion, this study revealed convenience to use has a directed positive effect on customer's virtual banking selection. For instance, In Hong Kong, virtual banks have had a huge positive impact on customers' financial systems. Virtual banking has replaced traditional banking methods, resulting in a significant improvement (Mei, 2017). On boarding of SMEs. Customers' interests will be prioritized by virtual banks, which will offer products and services that strive to improve customers' living conditions in the community. Booking flights and hotels and travel insurance, and auto rentals are all available through Hong Kong virtual banking services. Virtual banking is critical to achieving hyper-personalization and a new business

model in the banking industry. Customers have enthusiastically embraced this new technological innovation system, exemplified in the FinTech innovation (HKMA) (Mei, 2017).

Service charges have direct positive effects on customer's virtual banking selection. It is important to point out that many employees have been strongly motivated to seek the services of Hong Kong virtual banks in the country as a result of digital financial inclusion services. Because of the technological capabilities afforded by the banking system, customers have established a higher level of trust in virtual banks. Virtual banks have invested heavily into a technology approach to improving the customer segmentation system, resulting in more effective customer participation in structural market systems. In a nutshell, banks need to invest in innovation and customer education as broader aspects of customer consideration in virtual banking in Hong. Customer satisfaction and convenience are very important considerations (Zhang et al., 2020), an Omnichannel environment. Virtual banks can also adopt new technologies to develop digital banks with absolutely unique designs that would contribute to and result in technology-driven solutions, such as interactive tables, intelligent ATMs, cashless branches, and video counsel.

This study revealed that security has a direct positive effect on customer's virtual banking selection. For instance, customers are in dire need of banking and not banks. This incentive results in the need for the banks to engage in tight competition for the market share and, more importantly, maintain contact with customers. Consequently, the banks' major goal is to strive to do more with digital, which involves the creation and development of new innovative systems. The banks face the challenge of achieving their objectives and maintaining their position as market actors while also gaining a competitive advantage. The distance between the customer and the service provider may be even more vital on the Internet than in traditional banking to establish relationships to eliminate uncertainty (Arner et al., 2020). When customers visited, for example, a branch, loyalty was easily created through interactions with employees. Concerning the digital age, conversely, loyalty is more likely to be developed through factors such as user-friendly websites (Mei, 2017). It used to be difficult

to end a human relationship; currently, the way an Internet bank site operates might provide higher value to the consumer. This will also be what distinguishes Internet banks from one another.

This study revealed that the trend in virtual banking has a direct positive effect on customer's virtual banking selection. For instance, in the context of Internet banking, the findings of this study only bolstered customer satisfaction and retention. However, authors such as Lee (2001) suggested that customer satisfaction initiatives be supported by switching cost management in identifying and preventing changing behaviour early on (Lee et al., 2001). Customers often prefer a banking system with advanced security features and a well-known industry brand. Virtual banking has given customers' finances a high level of confidentiality, giving the financial sector a distinct identity. According to Mei (2017), virtual banking has created a distinctive and solid security framework for most Hong Kong clients, fuel the product's strong adoption. Customers can now use virtual banking services from the convenience of their own homes. Many employees have been strongly motivated to seek Hong Kong virtual banks (Zhang et al., 2020) in the country as a result of digital financial inclusion services. Because of the technological capabilities afforded by the banking system, customers have established a higher level of trust in virtual banks. Virtual banks have put money into a technical method to improve the customer segmentation system, resulting in more effective customer participation in structural market systems.

The virtual banks will need many ways of engaging with the customers because the latter exhibits traits of involvement and engagement, which translates to the potentiality of becoming loyal. It is inherently possible for the customers to transact businesses with different online banks (Mei, 2017). For example, in doing shopping. However, banking is equivalent to (Mei, 2017). A customer's private economy and the demand to achieve this come with a need for security and confidentiality. Primarily, a customer is aware of what he or she has in the banks, but on the other hand, they do not know what they get. In this view, customer engagement is a key step in customer consideration in virtual banking in Hong Kong.

5.2 Recommendations

5.2.1 Marketing strategies that can enhance customer consideration in virtual banking are as follows:

Website:

a) Simplify Financial Concepts with Explainer Videos on website

According to research, more than 50% of website visitors leave a site within 15 seconds. To avoid this, many companies are sharing short videos on their website (Sam Makad, 2021). To simplify complex financial ideas with attractive graphics, understandable content with nice background music, these could draw the attention of customers to stay longer on website.

b) Make Your Website the Main TouchPoint for Customers

To offer 24 hours in 7 days to easy access and communicate with a live person during an online purchase is one of the most important features a website can offer. The management of virtual banks should put in place necessary measures and effort focused on constantly engaging and improving the website, which is the major communication platform in virtual banking. Focus on the website all aids in understanding the needs and expectations of the customers (Zhang et al., 2020), especially by analysing the feedback, messages, comments, and reviews. Such a move would put the virtual banks in better positions of adjusting the system to fit the customer needs. More importantly, this move seeks to keep in communication with online banking customers.

c) Innovation and user-friendly websites/mobile marketing

A well-designed mobile platform can be used to share information with clients while also sending them reminders about their pending bills and payment updates, to make them feel cared for. A mobile app can also be used for in-app marketing to deliver a highly personalized product or service-related messages to a customer's device, as it is easier

and less expensive to up-sell and cross-sell current customers than to acquire a new customer (Sam Makad, 2021). Customer considerations are also seen in providing new applications and services developed in the banking system for digital applications (Sze-Lok & Hoi-Yan, 2001). This is a customer-orientated strategy, in which case the banks offer necessary tools which can be used at a personnel level to understand and control transactions satisfactorily. User-friendly tools such as synthetic records show transactions conducted by a particular customer, graphs, statistics and card management, and other tools. The second consideration that favours the customers is the tool that provides new services such as recurrent bill transactions, exchange, deposits, online assistance, direct debit, a long-standing order, among other new services. Virtual banks ought to implement innovative practices, among other innovations, to understand all the activities and information regarding online banking. This may include the formation of personalized messages and short message services unequivocally to boost customer's knowledge and understanding of virtual banking, especially because the world is quickly changing in this digital era. Notably, information management is key, so coming up with innovative practices to aid the customers in understanding smart banking is a special consideration in the informational era. By far and large, reliability, convenience, and (Zhang et al., 2020) creating a link between the customers and the virtual banks are vital to virtual banking.

Influence strategy:

The banks have a duty to influence customer perception, attitude, and behaviour, all through consideration during and after the formation of policies. This study has had a fair share of insight in terms of strategies that can be put in place to improve the customer's place and engagement in virtual banking. As such, the outcome highly points to a practical recommendation and implications to the virtual banks. Virtual banks must consider the creation of online banking websites, which ought to put in the policy of user-friendliness and at the same time helps the customers to get online help regarding virtual banking easily. For example, if the virtual banks seek to give the customers a choice of language

preferred for the online transactions, they will choose a more convenient language e language, easy for them to use. This move is likely to attract many customers who will find it easy to choose a language they understand better.

Profit strategy:

A move to change customer's attitudes towards the technological advancement of virtual banking is a major consideration that ought to be adopted by the virtual banks if at all they require making profits. Virtual banks should emphasize a move to attract customers creating unparalleled awareness about the adoption of virtual banking, including but not limited to the inclusion of the benefits of virtual banking.

Fees strategy:

Unlike traditional bank cuts (Zhang et al., 2020), virtual banking is out of any service fees. Therefore, virtual banks should cut out unnecessary virtual banking charges on the services they offer to the customers to achieve profitability. Such a move is a special customer consideration that should be implemented by all virtual banks not only to attract new customers but also to maintain the old ones.

Good service strategy:

One of the most important recommendations would be for the banks to engage in customer relationships in account opening processes. Initiating a conversation via the online platforms is a key element in building and creating trust between the virtual bank and the customers and an engaged relationship. During such a developmental conversation between the bank and the customer, the virtual banks must seek to create trust so that they will automatically believe that the virtual banks are interested in knowing and understanding their quest to do business with them. Notably, this strategy is likely to make customers believe that service to them is the key priority of the virtual banks, and so they might think that their loyalty or business will be rewarded.

5.3 Limitation and Further Study

The researcher faced challenges in data collection as some of the respondents did not submit the questionnaires, however, the researcher managed to receive feedback from 144 respondents. This study proposes further study on virtual banking and its effects on customers' financial management.

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APPENDIX

Questionnaire on the Customer Consideration in Virtual Banks

I am now studying the Master's degree in business administration at University of Wales of England in partnership with Hong Kong Management Association. I am currently conducting academic research to analyze customers consideration of virtual banks in the Hong Kong market industry system. To discuss the importance of virtual banking to customers, such as services fees, convenience to use, service fees, bank branding/security, and trend of virtual banks in the Hong Kong industry sector. This questionnaire will take around 5-10 minutes to complete. All information collected is kept in confidential and used for academic purpose only. Thank you for your kind co-operation.

Teresa

Oct 2021

APPENDIX 1

Appendix1: Sample of Questionnaire

Questionnaire

Part 1: Charges and security

	Strongly Disagree	Strongly Disagree
1. Before changing the banking options, the overall process of virtual banking are most likely to be lower than average		1 2 3 4 5 6 7
2. Relative to other banking options, the prices of virtual banking are most likely to be low....	1 2 3 5 5 6 7	
3. Before changing the banking options, my expectations about virtual banking are most are very high		1 2 3 4 5 6 7
4. Prices are likely to be lower than other banking systems		1 2 3 4 5 6 7
5. Virtual Banking would offer services that are good value for the money	1 2 3 4 5 6 7	
6. Prices of virtual banking services would be fair		1 2 3 4 5 6 7
7. Services purchased from virtual banks would be economical		1 2 3 4 5 6 7

Part 2: Convenience to use

	Strongly Disagree	Strongly Disagree
8. I think virtual banking image is modern		1 2 3 4 5 6 7
9. I think virtual banking image is old-fashioned		1 2 3 4 5 6 7
10. I think image of virtual banking is dull		1 2 3 4 5 6 7
11. I think image of virtual banking is interesting		1 2 3 4 5 6 7
12. I think image of virtual banking is unappealing		1 2 3 4 5 6 7

13. I think image of virtual banking is appealing	1 2 3 4 5 6 7
14. I think image of virtual banking is economical	1 2 3 4 5 6 7
15. I think image of virtual banking is extravagant	1 2 3 4 5 6 7

Part 3: Trend of Virtual Banking **Strongly Disagree** **Strongly Disagree**

16. I "talk up" virtual banking to people I know	1 2 3 4 5 6 7
17. I bring up virtual banking in a positive way in conversations with friends and acquaintances	1 2 3 4 5 6 7
18. In social situations, I often speak favorably about virtual banking	1 2 3 4 5 6 7

Part 4: Customer Selection **Strongly Disagree** **Strongly Disagree**

19. When using virtual banking, I feel surprised, amazed or astonished	1 2 3 4 5 6 7
20. When using virtual banking, sometimes feel angry, enraged or annoyed.	1 2 3 4 5 6 7
21. I continue to use virtual banking because the old system of baking isn't good	1234567
22. My choice to use virtual banking is a wise one	1 2 3 4 5 6 7
23. I think I did the wrong thing when using virtual banking services	1 2 3 4 5 6 7
24. I could easily switch from virtual banks to the traditional banking	1 2 3 4 5 6 7
25. I am committed to virtual banking	1 2 3 4 5 6 7
26. I feel a sense of loyalty to virtual banking	1 2 3 4 5 6 7

Part 6: Basic Information

27. Gender **a. Male** **b. Female**

28. Age Group

- a. 18 or Below ☐
- b. 19-25 ☐
- c. 26-35 ☐
- d. 36-45 ☐
- e. 46 or Above ☐

29. Occupation ☐

- a. Student ☐
- b. Professional and Manager ☐
- c. Officer ☐
- d. Housewife ☐
- e. Other, please specify ☐

30. Education Level

- a. Primary School ☐
- b. Secondary School ☐
- c. Certificate/Diploma/High Diploma ☐
- d. Bachelor Degree ☐
- e. Postgraduate or above ☐

31. Monthly income	
a. HK\$ 10,000 or below	
b. HK\$ 10,001 -HK\$15,000	
c. HK\$ 15,001 - HK\$20,000	
d. HK\$ 20,001 -HK\$25,000	
e. HK\$ 25,001 - HK\$30,000	
f. HK\$ 30,001 or above	