Internet banking in Malaysia a study based on Retail commercial banking

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ABSTRACT

This study is going to determine the level of customer satisfaction on online banking services Operated by domestic and foreign commercial banks in Malaysia. The banks Included in this study are Maybank, Public Bank, RHB Bank, Ambank, UOB, Standard Chartered, and HSBC etc. The customer satisfaction of online banking services will be determined by using primary and secondary data whereby for primary data questionnaires will be distributed randomly to the general users of online banking services in Malaysia. The outcomes of this study will show the evidence of customer satisfaction and that will help the banks to determine the most influencing dimensions in determining customer satisfaction. There will be some recommendations by the end of the study which may help the future researchers in similar areas.
Key words: Online banking, customer satisfaction, cost of saving

Research Background

Banking industry is a main purpose of growing financial development of a country where the online banking is a practice with regards to take care of all the banking transaction. Internet banking is a practice concerning all the bank exchanges through internet which enable the customer to do their transaction through online by using PC. Nowadays in an overall business association, online banking has transformed into the quick revolution in the online banking and finance sector as many as of association gain information of cash flow report, reviewing day by day transaction processing from banking sector. On the other hand, with no trouble internet banking, account holder can easily and rapidly get in and successfully executed the transaction. Something from master, Lee, Tsai and Lanting (2011) demonstrates that later on, organization will compete not just in the physical market, and also in the virtual market (online innovation).

At the end of the day, there will be an expanding number of organizations switch their plans of activity from the physical to the virtual market. Over the most recent three decades, the financial associations offered distinctive sorts of new money related items or inline banking services to hold

existing customer and draw in new customers. An online banking channel has been use as the advancement adds new estimations to the internet banking system and grew significantly in the past couple of years. The self-service technology enables the banker, accumulates information and communicate with customers without face to face interaction and in this way save the exchange time and lower the operating expense through the internet banking system (said Calisir, Gumussoy, 2008).

Since the change of Malaysian banking industry, first they presented in the mid-1980s, the banks in the financial area had begun the first Automated Teller Machine (ATMs). This was followed by telephone banking benefits in the 1980s and in the 1990s, with the rise of the Internet; banks has offered online banking applications as improvement of their current delivery channels. By then on first June 2000, Bank Negara Malaysia (BNM) or Central Bank of Malaysia began offer Internet Banking service to their customers. On June 15, 2000, Malayan Banking Berhad (Maybank) the biggest local bank has transformed into and presented as first own internet banking service in Malaysia through its website www.maybank2u.com and as at October 2000, it touched around 45,000 active Internet Banking clients.

In Malaysia, Internet banking can possibly lead technological development that change the financial industry. In the target point of view, its advantages to organizations and customers are over the long run. Financial institution in Malaysia keep embracing quickly the technologies and taking initiatives action to improve the products delivery channels in banking system. The changes in consumer behavioral is reflected in the expanding utilization of electronic banking system.

Other than these, banks preferred of online banking system by offering various opportunities including an additional supply channel, less-cost exchange, profitable banking, quality service banking, and empowers them to offer products to achieve customer demand and needs. Many sorts of banking also benefit clients, for instance, online payment, online exchange, checking balances, internet shopping, it enables account holder to get to their record at anywhere and anytime. Along these lines, Internet banking service give quick, productive service and in addition offers us to secure of more accuracy of data and information and convenient banking. Similarly, customers can appreciate the new banking service benefits through online banking for instance, paying bills, getting home loan or car advances, applying for credit cards and finding the nearest ATM or branch office for customers' benefit.

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Problem Statement

What exactly I will find out. Basically this section will describe what kind of problem clients are facing and in future problem may have to face. These days, Customer satisfaction has been considered in all organizations. It is particularly important to service sectors that give services to the clients. Good consumer loyalty guarantees holding and returning clients and also new clients. It is not a easy and simple task to pick up consumer loyalty. Many organizations do not pay attention on consumer loyalty. Internet banking is considered as a modern move in giving clients alternative approaches to play out their banking transaction. A large portion of the monetary organizations spend a great amount of money to create online banking system that is secure and productive to get their clients trust and utilize the services. It takes long time to grow such system because of its completed procedure and security issues. Thus, the financial institutions get an immense return after they implemented the online banking system.

However, a portion of the online banking is viewed as a failure because of satisfaction of clients' fulfillment. Customer may imagine that the system is absence of certain quality. That's why financial institutions should always consider from customer point of view when developing such system. That are many reason, that the customer considers when they go to use of internet banking system. These components will be utilized as benchmark to decide consumer satisfaction in utilizing internet banking system.

Research Model

Literature Review on variables

Time Saving

Time saving is characterized as the time of wasted and inconvenience in branch banking process that delays of getting or keeping cash of banking transaction. "The key outcome demonstrates that clients are impacted in their practice of internet banking amenities by verifying that the slow operation speed is the most repeatedly met issue while using internet banking (Agarwal et al., 2009)". "Lee (2008) found that clients of internet banking happy with the quick service in accepting on the online transfer and payments and they may have concerned the time waste while sitting line in the bank branch for executing their cash".

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Time saving may also affect the getting of receiving of internet banking service. These may influence the customers whereby to lead any operation or have any transaction resolution making within few minutes. Accessibility is one of the important factors that inspire clients utilizing the internet banking service. Also, the time saving is correct the internet banking of suitability observation.

Cost Saving

"Online banking has been measured as the most important approach to reduce cost and maintain or upgrade services for consumers (Hua, 2009)." By offering Internet Banking service, traditional financial organization try to minor operational expenses, enhance consumer banking service, hold consumer and extend offer for client. Internet is the low cost transmission network for banking merchandise as it allows the person to diminish their branch banking and downscale the quantity of provision staff. "The safety of the website is an identical piece of Internet Banking since it can change over one of the greatest advantages of a business entity" (Ortega et al., 2007). **). "Internet Banking is a progression of revolution whereby customers handle their self-banking dealings without visiting bank branch"**(Qureshi et al., 2008).

New result advocates that an Internet-based customer banking policy might be effective, with information of more secured, "loyal and committed customers can compare with conventional banking consumers"(ABA, 2004; Fox,2005). Accordingly, modern banks now regard the Internet channel as comparatively vital to old-style channels of branches, Automated teller machines (ATM), telephone banking and call centers (Gartner, 2003). In the innovative banking system, "Internet banking is **progressively accomplished** as a successful action and an essential component of a multi-channel approach" (Black et al., 2002).

Higher Security

Security also called privacy risk that meant as any event compromises the benefits, operations and objectives of an organization. While in this paper, it is clear as the possibility that "internet users lose its security because of scheme or any unlicensed online access to client's records" (Lee, 2009). There are a few factors under security and trust numbering security and trust of online banking clients' data which shows the significance of customer's attribute with risk free task. In addition,

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"security and privacy also should be concerned while doing their online banking transaction"(Agarwal, Rastogi and Mehrotra, 2009).

Numerous researchers have been discovered that security is statistically critical when consumer embracing online banking. For instance, as indicated by Zavareha et al. (2012), "the researcher proved that security is three estimations statistically essential to security and trust" Lee et al. (2011) studies also support that "trust has positive and significance impact on the mentality towards changing to online banking". This is because that when clients felt that their physical bank is reliable, they will have guaranteed in utilizing online banking. Next, based on the result Lee (2009) considers, "the hypotheses of higher security is adversely impacts attitudes and goals to utilize online banking" were supported. Lee (2009) also start that "security stuff seems to be the most significance inhibitor to the acknowledgment of online banking". This is because that internet clients are regularly worried about the fraud and identity fraud when managing internet banking.

Research design

Research design is identified as a directing plan specifying the strategies and methodology and procedures for handling and assessing the related data (Zikmund, 2003). As indicated by Hair et al (2007), " it gives the required data on the research question and the essential course to carry out the research". In this manner, the research planned must be developed in order to be more viably directing a business research. The research was led by utilizing information with quantitative and descriptive method in getting valuable and significant data which suitable in building proper model and getting a reliable outcome. Quantitative research is an estimation which creates numerical for a statistical survey. The information can be gathered as a questionnaire or survey. Moreover, this research utilized employed descriptive research to acquire information that depict the characteristic of a population or phenomenon that as of now exists and decided the reason that contribute to the particular characteristic (Zikmund, 2003). In the study, the risk that affecting the acknowledgment on online banking has been inspected. The determined risk will give a rough picture on how these risk influence the behavioral aim to utilize online banking in customer's view. In this way, this paper finding depend on the surveys that appropriated to a portion of the online customer by utilizing convenient sampling and snowball sampling to explore the connection between independent variable and dependent variable.

Data Collection Method

Data can be gathered by utilizing one or more methods. Data accumulation is information gathered by utilizing postal, electric mailing, individual meeting or by questionnaire surveys. The two sorts of information, primary and secondary information are utilized to increase significant research outcomes. The researcher will ordinarily consider utilizing both information gathering techniques in research project to ensure the independent variable ready to impact the independent variables and fit the research goals.

Sampling design

According by Zikmund (2003), sampling is the advance of utilizing small number of population out from the huge population as an representative and make conclusion in general element. Likewise, it is regular to characterize an example as a subset of the population. Sampling design is a method that enables the researchers to pick statistical units randomly that makes the researchers simpler in analyzing the characteristics of the population components (Antal and Tille, 2011). In this area, the researchers will talk about the target population, sample size, sample outline, sampling component and furthermore sampling technique that required in the survey.

Target Population

"Target population is an entire group of distinct population parts that identified with the research project" (Zikmund, 2003). The researchers need to determine the gathering of target population before beginning the research. Sampling unit is a little group which chosen from the entire population. However, researchers must guarantee that they select their target population as per their research objective (Hair et al., 2007).

The primary data of the target population in this study contain any online clients age's identity's 18 or more in KL, Malaysia. This is the reason behind picking those respondents as my research sample is because that they achieve the maturity age of greater part that are at risk for their own behavior by their own responsibility. Other than that, the online banking clients are individuals that have the ability and information to deal with online banking operation. That is the reason why the research focused on the sample on online banking clients.

Sampling Frame and Sampling Location

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Sampling frame and sampling location is ordinarily we can state as the second step of the sampling procedure. It is a total list that include all sampling unit or a list that incorporates each unit. As indicated by Hair et al. (2007) "Sampling outline also entitled working population", it is particular as a list element that from which a sample might be named. In this paper, the sampling outline consist of all online banking clients in Kualalampur, Malaysia. it is possible that they are students, teacher, administrative position, experts, general people or even in the labor and work position. The survey questionnaire was distributed by utilizing an online form program called "Google form" that save of time, cash and effort in doing the information gathering progress in my research paper. In addition, online survey also gave me the solution of geographical hindrances issue that will reverse if utilizing conventional survey technique.

Sampling Technique

Sampling technique, which means for gathering data how I will be the right and conveient sampling strategy that can be ordered into probability and probability sampling. Predominantly, there are five most uses on sampling technique under the probability sampling, which contain simple random, systematic, stratified, cluster and multistage region sampling procedures. These methods can be connected when the objective population is known, as for me I can ready to utilize random selection of segment that had an equal opportunity to be attracted inside the sample to diminish or eradicate sampling technique.

In any case, non-probability sampling will be connected when each component inside the sample are as a rule randomly chose, there are no equivalent opportunities to be chosen. It is a sampling technique which units of the sampling were specific on the source of researcher's individual choice or convenient. Along these lines, there is a greater opportunity to pick up the bias findings of the study. Non-probability technique incorporates quota sampling, convenient sampling, judging sampling and snowball sampling.

Sample size

Basically draft questionnaire has been tried by 50 respondents in Lincoln Campus area to show that all inquiries can be legitimately understood, indicating that the plan of the survey is feasible. Other than that, the researchers are focusing to get 100 sets of online surveys within the period.

after getting the targeted on test size of 100 respondents was resolved and it will enter into SPSS form 21.0. This virtual survey, will directed for one month, with inadequate reactions and disappeared esteems will be erased, subsequent in an example size of 60 users for an aggregate reaction rate of 60%. (ED).

Data analysis

The gathered information will analyze by utilizing different analyzing tools and techniques. The statistical package for social science (SPSS) PC software program 21.0 is utilized to assess the research questions and to finish the break down data. The researchers utilize the product software system to arrange every variable into the numerical data in order for them to compute result with no troubles.

The consequences of all tests will used to support the hypotheses of the research. SPSS can create decision building information quickly by utilizing instructing statistic, understand and effectively high perfection yields. In the research, it consists of three sorts of analysis which incorporate descriptive analysis, scale measurement and inferential analysis.

Descriptive Analysis

As per Zikmund (2003), descriptive research is utilized to depict the characteristics or sample. It is a channel to change the raw data to become a frame that simple for client to understand and interpretation.

Before changing the data, researchers are required to carry out the frequency distribution by utilizing SPSS PC software program to analyze the different reaction and provide numbers of the different variables (Hair et al., 2007). In this manner, computing average, frequency distribution and rate distribution turn into the most widely recognized method for summarizing the data. Onrmal and ordinal scales are utilized to gauge the responses in Section A. The cumulative rates of the variable and frequency will capable be discovered the data. While, interval scale is utilized as a part of the part B for recognizing average and mean.

Internal Reliability Test

As indicated by Sekaran (2003), "reliability is the degree to measures are free from inaccuracy and therefore yield reliable outcomes. It enables researchers to have a better outline on the frequency and percentage of various group of data and in this manner ready to judge the reliability. The relationship obtained between the scale ready to decide the strength and consistency of the data. (ED)

In this study, Cronbach's Alpha test has been chosen to examine the internal consistency reliability of the measurement scale. Because of Zikmund et al. (2010) and George and Mallery (2003), the Cronbach's Alpha reliability quality coefficients, if that is under 0.6 is poor reliability, between 0.60 to 0.70 is reasonable reliability, between 0.7 to 0.8 reliability outcome demonstrates good and more than 0.8 is considered as excellent good reliability. Cronbach's Alpha reliability model analysis will be directed in section A through the pilot test which comprises of participation of 20 respondents whom are required to answer all the inquiries recorded in the survey. In this manner, the information will be gathered and tested within few days. The minimum of alpha value for every independent variable not to be less than 0.70 which shows that the proposed independent factors are as still sustained as reliable and adequate (Zikmund et al. (2010).

Inferential analysis

Inferential analysis is utilized to make judgments about population from a sample. Based on sample data, the researchers can decide if there is a significant relationship or no relationship between two population factors (Hair et al. 2007). In this research, Pearson relationship analysis and different linear regression will use to create a conclusion for the hypotheses and research question that proved in the earlier part. (ED)

Pearson's Correlation Analysis

The Pearson's Correlation Analysis is utilized to gauge the covariance between the dependent variable, consumer satisfaction and with the independent variable which including Cost saving, time saving and Higher security. When all is said in done, researchers utilize "r" as the symbol of correlation coefficient to show the significant relationship among the variables. It ranges from – 1.00 to + 1.00. Correlation coefficient can either +1 (perfect positive relationship) or - 1 (perfect negative relationship). While, zero demonstrates there is no direct correlation between the two

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factors. The greater the correlation coefficient determines the stronger the level of affiliation relationship.

Simple Linear Regression Analysis

As indicated by Hair et al. (2007), "simple linear regression utilized for measuring direct correlation between single independent variable with a dependent variable to make a forecast". Correlation indicates the way and quality of the relationship between two variables. While, R square (r2) demonstrates what percentage of independent variable can clarify be in the independent variable. F-proportion used to evaluate the significant of the general regression model. The F-ratio is used if P-value under 0.05. The more value of the F-ratio, the more significant are the variable.

Central Tendency Measurement

In this area, focal tendencies of measurement are made to find the mean scores for the five intervals scaled theories. There is a sum of 46 things with its mean value acquired from the SPSS. All the made were appointed on a 5-point Likert Scale with 1 specifying 'Strongly Disagree', 2 specifying 'Disagree', 3 indicating 'Neutral', 4 specifying 'Agree', and 5 specifying 'Strongly Agree'.

Scale of Measurement

Internal Reliability Test

The goal of reliability estimation is to test whether the nature of data in the questionnaire is reliable or not in order to produce an accuracy results. In this way, I applied Cronbach's Coefficient Alpha to calculate the good quality of the study.

Table 4.11: Reliability Test on Actual Survey

Variables	Cronbach's Alpha	Number of Items
Cost Saving	.683	3
Time Saving	.670	3
Higher Security	.741	3

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Consumer Satisfaction	.872	4

Source: Data generated by SPSS version 21.0

In this research, I utilized Cronbach's Alpha to inspect the internal reliability of five points. In this survey, there are 29 objects have been included to test the interior reliability of the variables. As per Zikmund (2010), "Alpha coefficient below 0.6, the reliabilities is viewed as poor reliability". If the Alpha coefficient is range from 0.6 to 0.7, they are measured to be fair reliability. Then again, if the Alpha coefficient is in the score of 0.7 to 0.8, at that point they are considered as not too bad reliability. Moreover, if the Alpha coefficient is in the score of 0.8 to 0.95, at that point they are considered as very good reliability. As indicated by the Table 4.9 over, Cronbach's Alpha of reliability test on Consumer satisfaction on Online Banking services is 0.872, which drops in the middle of the range 0.80 to 0.95 and it is considered as very good reliability.

Besides, the Cronbach's Alpha result of reliability test on cost saving is 0.683, which is falls under the range 0.60 to 0.70 and it is measured very fair reliability. Moreover, the coefficient of Cronbach's Alpha of efficient is 0.670, which also appears between the range of 0.60 to 0.70. In any case, the reliability test on higher security, it demonstrated the highest value estimation of Cronbach's Alpha among the three independent variables, which is 0.741 that falls under range 0.70 to 0.80 and it is considered as a good reliability. Since every one of the variables showed the Cronbach's Coefficient Alpha value over 0.60, so it can be calculated that the general reliability of the survey questionnaire utilized is acceptable in this study. (ED)

Inferential analysis

Inferential inquiry is used to examine the relationship between independent variables and dependent variables. The features of the population will be decided based on the inferential analysis conducted on the sample such as Pearson Correlation Analysis and Simple Linear Regression Analysis.

Pearson Correlation Analysis

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The Pearson's Correlation Analysis is used to measures the covariance between the dependent variable with the independent variable, which means that whether the Three independent variables (Cost Saving, time saving, and Higher security) have important affiliation with dependent variable (consumer satisfaction by using online banking services).

Hypothesis A: Relationship between Cost saving and Consumers 'satisfaction on Internet Banking.

H0A: There is no significant relationship between Cost Saving and Customer satisfaction on Internet Banking.

H1A: There is significant relationship between Cost Saving and Customer satisfaction on Internet Banking.

Correlation of Cost Saving and Consumers Satisfaction on Online Banking

Correlations

		Customer satisfaction	Cost Saving
Customer Satisfaction	Pearson Correlation	1	.295[*]
	Sig. (2-Tailed)		.022
	N	60	60
Cost Saving	Pearson Correlation	.295[*]	1
	Sig. (2-Tailed)	.022	
	N	60	60

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Data created by SPSS version 21.0

Based on above Table 4.13, it is revealed that there is a positive connection between cost saving and customer satisfaction on online banking which the correlation coefficient is .295. Additionally, based on the Table 4.11 determined that the connection between these variables is a little but

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definite relationship which is falling between - 0.21 and - 0.40. In any case, the P-value for these hypotheses is 0.022 which is not less than 0.05 at the significant level of 5%. In this way, it is demonstrated that there is a significant positive connection between cost saving and consumer satisfaction on internet banking. Accordingly, H0A is rejected and H1A is accepted.

Hypotheses B: Relationship between Time Saving and Customer Satisfaction on Intenet Banking.

H0B: There is no significant relationship between Time Saving and Customer satisfaction on Internet Banking.

H1B: There is Significant relationship between Time Saving and Customer satisfaction on Internet Banking.

Correlation of Time saving and Customer satisfaction on Internet Banking.

Correlations

		Time Saving	**Customer Satisfaction**
Time Saving	Pearson Correlation	1	.173
	Sig. (2-tailed)		.185
	N	60	60
Customer Satisfaction	Pearson Correlation	.173	1
	Sig. (2-tailed)	.185	
	N	60	60

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

Source: Data Created by SPSS version 21.0

Based on above Table 4.14, the result shown that there is a slightly positive relationship between time saving and customer satisfaction on internet baking because of its correlation coefficient is .173.According to the Table 4.11, it is described that the connection between these variables is an extremely slight relationship which is remain between - 0.00 and - 0.20. However, P-value for this hypotheses is fall to 0.185 which is at least 0.05 at the significant level of 5%. Along these lines,

it is shown that there is a significant slight positive connection between time saving and customer satisfaction on internet banking. It is demonstrated that H0B is rejected and H1B is acknowledged.

Hypotheses C: Relationship between Higher Security and Customer satisfaction on Internet Banking.

H0C: There is no significant relationship between Higher Security and Customer satisfaction on Internet Banking.

H1C: There is significant relationship between Higher Security and Customer satisfaction on Internet Banking.

Correlation of Higher Security and Consumers' satisfaction on Online Banking

Correlations

		Customer satisfaction	Higher security
Customer satisfaction	Pearson Correlation	1	.096
	Sig. (2-tailed)		.465
	N	60	60
Higher security	Pearson Correlation	.096	1
	Sig. (2-tailed)	.465	
	N	60	60

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

Source: Data created by SPSS version 21.0

From above the Table 4.15, it is appeared there is positive connection between Higher security and customer's satisfaction on online banking which the correlation coefficient is at .096. As per the Table 4.12, it is shown that the relationship between these variables is known as slight relationship within the range of 0.00 to 0.20. The P-value for these hypotheses is 0.465 which is more than 0.05 at the significance level of 5%. Along these lines, there is a significance connection between higher security and customer satisfaction on internet banking. Thus, H0C will be rejected while H1C is accepted.

Limitations of the study

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As I found the results of analysis are statistically vital but there were specific limitation points in my study. To begin with, because of time limitations, the researchers had taken just couple of weeks to gather survey results from respondents, accordingly to get enough respondents there were a few troubles as foreign student in abroad within the time. Then again, the pattern of independent variables is changed time to time so comparison utilizing time series can't be analyzed. For instance, the outcomes for cost saving in the current years would be different with the outcomes from last a year ago.

Also, this study subject fundamentally focuses on corporate business to Consumers condition where every one of the information has been formed for the most part from non-business customers like students and lecturer and accordingly it indirectly neglected the clients from business environment. For instant I gathered information from business to business, resellers, non-benefit foundation and government. There may be different outcomes if B2B information are incorporated into this research sample.

Recommendations for Future Research

As for future researchers the individuals who will involve to any proposal or research in this field, it is recommended to evaluate the consumer satisfaction level they should a longitudinal study. By utilizing the longitudinal data in future, it might help in analyze the research model in various periods and also make correlations. Hence, this assistance in giving a better view into the phenomenon of internet banking adoption. Moreover, Future researchers additionally should pay dedication on business to business consumer environment.

So far this study is 60% from the targeted population so the rest around 40% of the variety in the customers' satisfaction to utilize internet banking contributed by others many variables that are unexplained. For this situation, here is proposal for the future research to execute different model, for example, Unified Theory of Acceptance and Use of Technology (UTAUT) planned by "Venkatesh in clarifying the conduct of purchaser". Hong and Kang (2011)", the researchers clarified that UTAUT is best behavioral model that clarifies client's conduct of receiving information technology. UTAUT model have two additional ways which incorporates facilitating conditions and social impact when compared with TAM.

As corporate or active investor, since this paper appeared out the outcomes that security has the most effect on customers' adoption on internet banking. Along these lines, in this security matter banker should consider more care on their bank online security system especially in terms of taking data the clients to make trusty relation with the customer. Accordingly, consumer may feel more secure in utilizing the online banking services.

In the meantime, this paper is essentially not discussed about social consciousness to impact consumer choice to utilize internet banking services. In this way, the involve with banking and policy making association can participate in making awareness on advantages of online banking through campaign. In this campaign, banker and policy creators can raise the awareness about the new approach and technological advancements that can help during the online banking transaction.

Conclusion

And very ending point, this researcher had finally revealed new system which express that the cost saving, time saving, higher security has a significant relationship towards consumer's satisfaction on internet banking. This implies if suitable concern is implant to the independent variables, at that point customers are more willing to utilize internet baking. This entire chapter had given a better comprehension of internet banking to customers. Nevertheless, researchers trust that there is still a degree for upgrading in this study.

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