Determinants of Customer Satisfaction and Customer Loyalty in
Net Banking of Thailand's Selected Commercial Banks in
Bangkok's Central Business District

Mr. Deepin Bogati

A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Business Administration in Marketing
Graduate School of Business
Assumption University
Academic Year 2017
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ABSTRACT

The primary objective of this research paper is to investigate the factors influencing customer satisfaction and customer loyalty in net banking customers of central business districts of Bangkok, Thailand. The researcher took in consideration various factors (core service quality, social benefits, confidence benefits, physical layout, special treatment benefits and accessibility) in order to check their influence on customer satisfaction and customer loyalty of the net banking clients. Moreover, demographic factors (gender, age, income and occupation) were also examined regarding the focal matter.

The study applied the descriptive statistics research method that used self-administered survey questionnaire method to collect the data from respondents. A 33 item questionnaire were developed based on the literature review and tested for reliability and validity using Cronbach’s alpha test. A total of 400 questionnaire were distributed to net banking clients in central business areas of Bangkok i.e. Ploenchit, Chidlom, Siam, Ratchadamri, Nana, Asoke, Phrom, Pong, Thong Lor, Ekkamai. Further more, Bank of Ayuthya, Bangkok Bank, Kasikorn Bank, SCB bank, KrungThai Bank, TMB bank and Standard Chartered Bank were selected for the study as they account approximately 75% of bank branches in Bangkok, thailand. Findings showed that most of the respondents were female respondents (52%), most of them aged from 31-40 years old (38.5%) majority having income level of 30,001-40000 (36%) while most of them were private employees (57%) and most of they had Bangkok bank as primary bank (23%).

The regression analysis suggested that core service quality, social benefits, confidence benefits and physical layout had significant influence on customer satisfaction of commercial banks and explained variance of customer satisfaction at 72%. Similarly, the Pearson correlation analysis concluded that customer satisfaction has significant medium positive correlation with customer loyalty (Sig=0.626**). Moreover, special treatment benefits and accessibility have significant medium positive relationship with customer satisfaction (Sig=0.497** and Sig= 0.400** respectively).
ACKNOWLEDGEMENTS

After reflecting upon what I have just completed, now I would like to take a time and appreciate everyone throughout the journey of this research paper. I feel so fortunate for getting constant guidance and motivation for development and completion of this report.

I would like to express my deepest appreciation to my research committee members who conveyed the spirit of adventure regarding the research and proper guidance and technical support regarding report writing. Without their guidance and persistent help, this report wouldn’t have been possible.

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In addition, I would like to express my gratitude to Assumption University and staffs of Graduate School of Business for providing me necessary resources and support during the report writing. I would also like to thank my friends and family for always being there to motivate me during this journey.

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Deepin Bogati
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ABBREVIATIONS

ATM : Automated Teller Machine
BOT: Bank of Thailand
CDM: Cash Deposit Machine
EFTPOS: Electronic Fund Transfer at Point of Sale
POS : Point of Sale
CHAPTER I
GENERALITIES OF THE STUDY

In this study, there are in total seven sections. They are the introduction of the study, the research problem, research objectives, and the scope of the research, limitations of the research, significance of the study and the definition of the terms. They are explained part by part.

1.1. Introduction to the Study

Aydin and Ozer (2005) conceptualized service quality as the customers overall assessment to the relative superiority or inferiority of the service provided by the service providers. The core service quality a multidimensional aspect which includes the services rendered by the employees, websites or mobile applications; service portfolios and service efficiency delivered by the service provider. In the service industry, there is a dire consequences of unacceptable service quality perceived by the customers i.e. customer switching. Garland (2002) defined that customer switching as customer forsakes one service provider for another service provider in expectation for better services. Customer switching in service industry happens when simply customers are not satisfied with the services delivered by the organization.

Lovelock, Patterson and Richard (2004) stressed that in order to achieve long term customer satisfaction and retention, a company needs to design and deliver services that could satisfy customer and provide them a wonderful experience during encounter of the services. Every business at present are concerned about customer satisfaction and customer retention. Banking industry is not an exception. Building a long term good relationship with customers and also retaining them in a critical strategy for any financial institution to remain profitable. Several empirical studies including Colgate and Lang (2001) concluded that there is positive correlation between customer satisfaction, consumer loyalty and banks profitability. Reichheld and Saser (1990) concluded that increasing customer retention rate by 5% increased the bank’s profit by 85%. Anderson and Sullivan (1993) also stressed that there are strong linkages between quality service dimensions and overall customer satisfaction.
Al-hawari (2014) noted that traditional service oriented concept in banking is outdated due to similar product offerings and intense competition among the industry. With regard to the product or services, the industry needs to focus more on the customer oriented service packages. Clemes, Gan and Zhang (2010) stated that customer satisfaction and customer retention have more impact on service oriented industry like banks, restaurants and hair salons. Coskun & Frohlich (1992) and Devlin (1995) stressed that since the central bank of any country controls the interest rates of the commercial banks, most of the commercial banks have similar product offerings in context of deposit and loan rates. As depicted in Appendix B; there is little difference in rates offered, financial service providers need to focus on other dimensions in order to get edge against the competitors.

Timothy (2012) states that 30 or 40 years ago, banking industry was a simple oligopoly industry where few banks provided the services and banks were solely used for deposit and lending purposes through the branches of the bank. With the increase of information and communication technology, banking business has integrated arrays of services along with automated software driven service providers who along with the traditional offline banking. This was the birth of net banking. Electronic or net banking is service rendered by the bank and financial institution where clients and the service provider engage into financial transactions via electronic channel and payment systems. The first ATM machine was installed in US by Chemical Bank at New York in September 2, 1969 A.D. Electronic banking then started to improve and banks provided arrays of services including credit cards, Visa cards, web banking, mobile banking etc.

Timothy (2012) and Rahman (2013) has stated that the electronic card service of bank i.e. debit and credit cards although are part of net banking, at present they are considered as traditional banking like branch banking. The clients of the bank are habituated to the use of these cards and like branches of the bank, customers perceive their service are indispensable. Al-hawari (2014) has described modern banking as integrated services provided by the bank and the financial institutions via physical bank branches, electronic, online and virtual gateways.

Electronic cards, web and mobile banking through all are part of electronic banking but they are different. Electronic cards use banking intranet services where the transactions are routed through either card issuing banks or other banks card reading machines (ATMs, CDMs or POS terminals) that in turn communicates with an
integrated gateway and switch of that bank. The transaction then via card intranet network get routed to the card issuing banks where it gets authorized (3DS verification) and the transaction is completed. Net banking in other hand uses internet (4G/3G/GPRS/LAN) where the merchant and the payment partner(aggregators) directly connect and communicate with the net banking partner through server-server calling and the fund transaction gets settled with the merchants bank at the end of the day for all transactions happening in that day. Last step is OTP/IVR authorization. Net banking via website is called web banking and through handheld mobile devices is called mobile banking.

Modern banking clients use different arrays of services from bank ranging from banking from bank branches, electronic cards, web banking, mobile banking, virtual gateways etc. Customers engage in branch banking for services such as international money transfer, foreign exchange, exchange of traveler's cheques, loan process, bank drafts or simply bank deposits and withdrawals etc. Clients mainly use electronic transaction services via debit cards, credit cards etc. for utility payments, inter and intra bank transfer and bill payments. Net banking i.e. web and mobile banking is also growing trend for virtual banking transactions. Clients use net banking for account overview, accessing to checking, saving, CDs and loan accounts with no fees, downloading e-statements, accessing multiple accounts, creating one time, recurring or future dated account transfers, accessing e-cheques etc.

Timothy (2012) and Rahman (2013) has stated that modern banking clients are not mutually exclusive in terms of service they are using. They have concluded that clients who are habituated in using net banking services are already using electronic cards and traditional branch banking system. Now the challenge for banking and financial institution is to analyze these clients complex banking behavior and satisfy and retain them. A modern banking customer though use all the services might have preference over traditional or net banking. A single customer might be satisfied with traditional services of bank but dissatisfied with the net banking services. Athanassopoulos, Gounaris and Stathakopoulos (2001) concluded that interest rates used to be the major factor for client satisfaction of the banks but the scenario is different today. Coskun and Frolich (1992) and Devlin (1995) reiterated the findings on interest rates.
For any industry, losing existing customer is a serious problem not only in terms of current profitability but also the future earnings. Lovelock et al. (2004) explain that it is 5 times more costly to acquire new customer than retaining the existing customers. The reason for these may be many. Athanassopoulos et al. (2001) founded that few reasons such as extra cost incurred in advertisement and promotional, administration and operation. Thus, increasing customer satisfaction and customer loyalty leads to customer retention which has substantial impact on profits.

1.1.1 Banking Industry in Thailand

According to the Bank of Thailand (2016a), commercial banking started in Thailand in October, 1904 A.D. when Siam Commercial Bank commenced its business. At present, there are 23 commercial banks in Thailand and in Bangkok these banks have 2169 branches. There can be seen a intense competition among the commercial banks and customer have high bargaining power to choose one bank over another. Traditionally people usually have one primary account but at present, clients use multiple bank accounts for various reasons such as salary account, credit cards, utility payments, online payments etc. Thus, in this competitive ground; bank service provider have to remain vigilant and active in order to satisfy their customers and though they have multiple bank accounts, the strategy of the bank should be to provide competitive edge against other competitors so that the clients use their bank as primary bank account and perform maximum transactions.
The following table illustrates commercial banks of Thailand:

**Table 1.1: Number of Commercial Bank Branches in Bangkok and Thailand**

<table>
<thead>
<tr>
<th>SN</th>
<th>Name of Banks</th>
<th>No of Branches in Bangkok</th>
<th>No of Branches in Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bangkok Bank Public Company Ltd.</td>
<td>308</td>
<td>1143</td>
</tr>
<tr>
<td>2</td>
<td>Krung Thai Bank Public Company Ltd.</td>
<td>290</td>
<td>1214</td>
</tr>
<tr>
<td>3</td>
<td>Kasikorn Bank Public Company Ltd.</td>
<td>316</td>
<td>1123</td>
</tr>
<tr>
<td>4</td>
<td>Siam Commercial Bank Public Company Ltd.</td>
<td>359</td>
<td>1210</td>
</tr>
<tr>
<td>5</td>
<td>Bank of Ayuthya Public Company Ltd.</td>
<td>196</td>
<td>638</td>
</tr>
<tr>
<td>6</td>
<td>TMB Bank Public Company Ltd.</td>
<td>166</td>
<td>455</td>
</tr>
<tr>
<td>7</td>
<td>Siam City Bank Public Company Ltd.</td>
<td>N.a.</td>
<td>N.a.</td>
</tr>
<tr>
<td>8</td>
<td>United Overseas Bank (Thai) Public Company Ltd.</td>
<td>85</td>
<td>155</td>
</tr>
<tr>
<td>9</td>
<td>Standard Chartered (Thailand) Public Company Ltd.</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>CIMB Thai Bank Public Company Ltd.</td>
<td>56</td>
<td>114</td>
</tr>
<tr>
<td>11</td>
<td>Thanachart Bank Public Company Ltd.</td>
<td>235</td>
<td>613</td>
</tr>
<tr>
<td>12</td>
<td>Tisco Bank Public Company Ltd.</td>
<td>24</td>
<td>57</td>
</tr>
<tr>
<td>13</td>
<td>Kiatnakin Bank Public Company Ltd.</td>
<td>27</td>
<td>66</td>
</tr>
<tr>
<td>14</td>
<td>Industrial and Commercial Bank of China (Thai) Public Company Ltd.</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>15</td>
<td>Land and Houses Retail Company Ltd.</td>
<td>45</td>
<td>126</td>
</tr>
<tr>
<td>16</td>
<td>Thai Credit Retail Bank Public Co. Ltd</td>
<td>16</td>
<td>74</td>
</tr>
<tr>
<td>SN</td>
<td>Name of Banks</td>
<td>No of Branches in Bangkok</td>
<td>No of Branches in Thailand</td>
</tr>
<tr>
<td>----</td>
<td>---------------------------------------------</td>
<td>---------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>17</td>
<td>AIG Retail bank Public Co. Ltd</td>
<td>N.a.</td>
<td>N.a.</td>
</tr>
<tr>
<td>18</td>
<td>Mega International Commercial Bank Public Company Ltd</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>19</td>
<td>GE Money Retail bank Public Co. Ltd</td>
<td>N.a.</td>
<td>N.a.</td>
</tr>
<tr>
<td>20</td>
<td>Bank of China (Thai) Public Co. Ltd</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>21</td>
<td>ANZ Bank (Thai) Public Co. Ltd</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>Sumitomo –Mitsui-Trust-Thai-Bank-Public Co. Ltd</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>Total</td>
<td>2169</td>
<td>7060</td>
</tr>
</tbody>
</table>


1.1.2 Traditional and Net Banking in Thailand

According to World Bank (2016), in Thailand 78% of the population over 15 years has a bank account. In addition, Worldometer (2016) estimates that number of population over 15 years in Thailand is 55,795,427. That concludes 43,520,443 Thai individuals have at least one bank account. The following table indicates total number of deposit accounts classified on basis of maturity.

**Table 1.2:** Total number of deposit accounts classified on basis of maturity.

<table>
<thead>
<tr>
<th>Types of account</th>
<th>Demand Deposit</th>
<th>Saving Deposit</th>
<th>Time &lt;=3 month</th>
<th>Time &gt;3-6 month</th>
<th>Time &gt;6 – 1 year</th>
<th>Time &gt;1-2 Years</th>
<th>Time &gt; 2 Years</th>
<th>Total Deposit accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2,342,512</td>
<td>77,068,687</td>
<td>4,094,405</td>
<td>963,338</td>
<td>2,525,877</td>
<td>1,109,644</td>
<td>450,815</td>
<td>88,555,278</td>
</tr>
</tbody>
</table>
According to NECTEC (2003), internet technology was introduced in Thailand in 1987 A.D and it was commercially available from 1995 A.D. With the exposure of internet and information technology, internet and mobile banking is gaining popularity in Thailand. As per Internet Live Stats (2016), the internet penetration rate of Thailand is 42.7% (28,925,578) of the total population (67,741,401).

According to Bank of Thailand (2015), net banking was initiated by Siam Commercial Bank PLC. in 1999 A.D which also happens to be first commercial bank of Thailand. The central bank of Thailand i.e. Bank of Thailand is responsible for laying the financial infrastructure and requirements of all commercial banks indispensable for electronic transactions. The following table shows the statistics regarding electronic banking in Thailand.

**Table 1.3: Statistics regarding electronic banking in Thailand**

<table>
<thead>
<tr>
<th>Particulars</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of agreements for net and mobile banking</td>
<td>24,465,925</td>
<td>23,598,048</td>
</tr>
<tr>
<td>Total number of ATMs, CDMs</td>
<td>61,817</td>
<td>56,851*</td>
</tr>
<tr>
<td>Total Number of ATM cards</td>
<td>24,401,333</td>
<td>24,101,957</td>
</tr>
<tr>
<td>Total Number of credit cards</td>
<td>20,303,751</td>
<td>18,626,864</td>
</tr>
<tr>
<td>Number of EFTPOS terminals</td>
<td>338,485</td>
<td>311,289</td>
</tr>
</tbody>
</table>

1. Agreements are the application for the online accounts  
2. EFTPOS (Electronic fund transfer at point of sale)  


As the table indicates, ebanking trend is on its rise in Thailand. As per Worldometers (2016); 43,520,443 Thai individuals have at least one bank account. That accounts 29.62% of individuals have registered for net banking, 56% of total bank
clients have ATM cards and 46% have credit cards approximately. The figure depicts that, electronic bank is a significant banking trend in Thailand. Online banking is also growing significantly.

There has been various empirical studies regarding the customer satisfaction and loyalty for branch banking and also for electronic banking separately. However, limited studies has been conducted on the modern banking clients who use branch banking, electronic cards and net banking.

Another factor that needs further studies in regards to the preference of the electronic banking clients. Some clients prefer branch banking and electronic cards while some prefer net and mobile banking. Past studies by Clemes et al. (2010), Bhattacherjee (2012) and Vyas and Raitani (2013) concluded that behavior of electronic card users and net banking are different demographically. Gerrard and Cunningham (2000) findings showed that graduates in Singapore with different level of income had different perception about mobile banking.

There is need for an extensive study regarding arrays of factors that can affect customer loyalty, satisfaction of the Net banking client in the business hub of Bangkok. The study needs to show the relationship between these variables and also the extent of these factors affecting the customer satisfaction and eventually customer loyalty.
1.1.2 Central Business District of Bangkok

According to the (The Bangkok Central Region and Central Business District, 2010); Bangkok’s central business areas and districts are divided into 5 parts which is illustrated in figure below:

Figure 1.1.2: Bangkok Central Region and Central Business District

Source:


These 5 regions are divided on basis of BTS stations and letters doesn’t imply the grade or quality of the area but jut the alphabetical orders.
Zone A comprises of Polenchit, Chidlom, Siam and Ratchadamri stations while Zone B comprises of Nana and Asoke. These are main tourist zone on Sukumvit dominated by tourist elements along the main road and Soi 1 to 21 North and Soi 2 to 24 South.

Zone C includes Phrom Pong, Thong Lo and Ekkamai BTS stations. These areas are predominantly expat luxury residential, but with some tourist elements close to zone B; mostly highrise condos & apartments but also a lot of nice houses.

Zone D includes Phra Khanong, On Nut and upper Ekkamai-RamIndra stations. These areas have scattered expats, much less shopping infrastructure oriented to foreigners, but also scattered houses of expat acceptability, mainly old Thai neighborhoods.

Zone E includes Sala Daeng, Chong Nonsi, Surasak Taskin stations. These areas have purely office highrise buildings, hotels, and nightlife on Silom, Surawong, and Sathorn (northwest zone E). There are also old Thai neighborhood with many highrise condos and apartments behind Sathorn Rd. Moreover, there are also some houses of expat acceptability (southeast zone E).
1.2. Statement of the Problem

Technology and informational communication technology has been boon for every industries and it brings challenges as well. Banking industry is not an exception. Banking industry in Thailand adopted net banking technology since 1999 A.D followed by net banking. The modern banking clients have developed complex banking behavior where they are habituated using banking services via service fronts; bank branches, ATMs, CDMs, POS machines, computers, handheld mobile devices, virtual gateways etc. The behavior, perception and banking preference of thee clients are different. Being very competitive industry and having similar financial rates offering; bank and financial institutions need to focus on other factors to acquire competitive edge against the competitors to satisfy customers and retain customer loyalty. Colgate and Lang (2001) concluded that in present competitive banking industry scenario, the customer bargaining power is high and customer retention is a big issue for the bank.

Modern banking customer preference is shifting towards electronic banking over traditional branch banking and these clients might have different standards and perceptions regarding satisfaction of service rendered by the banks and their loyalty of their primary banks. Thus, the study tries to investigate what are the key factors that influence the customer satisfaction and loyalty in electronic banking. The questions to be addressed by the research are as follows:

1. Do core service quality of bank influence customer satisfaction in Net banking industry?
2. Do customer social benefits influence customer satisfaction in the Net banking Industry?
3. Do customer confidence benefits influence customer satisfaction in the Net banking Industry?
4. Do physical layout influence customer satisfaction in the Net banking Industry?
5. Is there any relationship between customer special treatment benefits and customer satisfaction?
6. Is there any relationship between service accessibility and customer satisfaction?
7. Is there any relationship between customer satisfaction and customer loyalty in banking industry?
1.3. Objectives of the Research

The primary objective of this research is to study the factors and their impact on the customer satisfaction and customer loyalty of Net banking in commercial banks. The following are the objectives of this study:

1. To investigate the influence of core service quality on customer satisfaction in the Net banking industry.
2. To investigate the influence of customer social benefits on customer satisfaction in the Net banking industry.
3. To investigate the influence of customer confidence benefits on customer satisfaction in the Net banking industry.
4. To investigate the influence of physical environment and tangibles on customer satisfaction in the Net banking industry.
5. To investigate the relationship between special treatment benefits and customer satisfaction in the E-banking industry.
6. To investigate the relationship between service accessibility and customer satisfaction in the Net banking industry.
7. To investigate the relationship between customer satisfaction and customer loyalty in the Net banking industry.

1.4 Scope of the Research

The primary purpose of this descriptive research is to investigate the key variables that influence the consumer satisfaction and customer loyalty of the Net banking in the central business district of Bangkok. The researcher has identified six independent variables which are core service quality, customer social benefits, customer confidence benefits, physical layout, customer special treatment benefits and service accessibility quality. The research has one moderating variable which is customer satisfaction while one dependent variable which is customer loyalty.

Different variables affecting the customer satisfaction and customer loyalty will be quantified and measured. For this study, data collection will be done by using self-administered questionnaires (SAQ). The questionnaire will be distributed to 400 different customers of the bank around the Bangkok area, having different demographic characteristics who have experienced Net banking. The researcher will use non-probability sampling method i.e. accidental or convenience sampling.
1.5 Limitation of the Research

While conducting any kind of research, there are certain internal and external factors causing number of limitation in the study which ultimately affects the final outcome and effectiveness of the study. In this process, generalized variables and factors applicable for all commercial banks which can affect the customer satisfaction and loyalty has been used were considered. Factors only applicable for few banks but not all were not taken in consideration. Therefore, all the variables within the scope of the study could not be studied. This research also investigated that modern banking customers perceive consumer satisfaction differently however measure and depth of the perception is still to be studied. The nature of the study required respondents who have experienced E-banking so customers who don’t use Net banking were not considered for the study. Moreover, this study focuses on the banking client perception and it doesn’t cover the sociology or the customer behavior in these business districts. The study has also taken in account only 6 banks and other banks are not taken into the account. Similarly, due to time and budgetary deficiency, the research was limited within the central business districts of Bangkok due to which customers from other provinces and regions could not be taken into the account for the research purpose.

1.6 Significance of the Study

This research will help service marketers of the financial industry better understand the key variables influencing one of major challenge of banking industry i.e. customer loyalty. There has been limited research on the factors and variables which affects the consumer loyalty for the modern Net banking in Asia. Most of these research studies are based on the commercial banks of the developed countries. In Thailand, modern banking industry is a competitive and growing industry and banks need to develop a critical strategy to retain their customer in order to pool more capital and also increase customer base and profitability.

This research will be beneficial for the marketing department of the commercial banks as it will discuss which factors actually are more important than others to retain their customers. The research will also provide light on the behavior and perceptions of E-banking preferring clients regarding customer satisfaction and customer loyalty. The management may also get idea about what services customer care more regarding electronic banking. Based on the information in the research, management can form
their new strategy improve the customer satisfaction, loyalty and customer retention to get competitive edge against the competitors.

Apart from management, this research will also provide the base for the other researcher to study more on the factors affecting the customer satisfaction and loyalty in Thai commercial banks. Moreover, in general all the management and marketing students can gain insight about service marketing in commercial banking sector.

1.7 Definition of the Terms

The definition of the terms for the Independent, moderating and dependent variables are given below:

1. **Confidence benefits to the customer**
   Ruiz-Molina *et al.* (2009) described the confidence benefits as the psychological factors associated with the feeling of security, trust, reduced anxiety in the current service providers.

2. **Core service quality**
   Aydin and Ozer (2005) described service quality as the customers overall assessment to the relative superiority or inferiority of the service provided by the financial service providers.

3. **Customer loyalty**
   Clemes *et al.* (2010) describes customer loyalty as the result of consistently positive emotional experience, physical attribute-based satisfaction and perceived value of an experience, which includes the product or services.

4. **Customer satisfaction**
   According to Churchil and Surpremant (1982), customer satisfaction is an output, resulting from the customer’s pre-purchase comparison of expected performance with perceived actual performance and incurred cost.
5. **Electronic banking**
NECTEC (2003) defines electronic banking as use of computer and electronic technology in place of checks and other paper transactions. EFTs are initiated through devices like cards or codes that let customers and authorized service personnel access customers’ account.

6. **Mobile banking**
NECTEC (2003) defines Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct a range of financial transactions remotely using a mobile device such as a mobile phone or tablet, and using software, usually called an app, provided by the financial institution for the purpose.

7. **Modern banking**
NECTEC (2003) defines modern banking as integrated arrays of services from bank ranging services from branch banking and different forms of electronic banking i.e card banking, web banking, mobile banking, virtual gateways etc.

8. **Physical Layout**
Nguyen and Leblanc (2002) defined physical layout as the packaging of services that has three components ambient conditions, spatial layout and décor and orientation signals.

9. **Service accessibility**
Spake & Megehee (2010) defined service accessibility as design of products, devices, services or environment for people to access the service directly (unassisted), indirectly (assisted) and/or help of assistive technology conveniently and efficiently.
10. Social benefits to the customer
Spake and Megehee (2010) defined social benefits as interpersonal relationship between the customer and the service provider ensuring mutual, long term relationship and benefits for both the parties.

11. Special treatment benefits to the customer
According to Colgate and Lang (2001), special treatment benefits consist of an extensive range of benefits or economic advantages which come in the form of first rate levels of service, preferential treatment, special operation conditions and time saving.

12. Traditional Banking
Timothy (2012) and Rahman (2013) stated that traditional banking refers to the traditional branch banking and electronic card banking such as ATM card, debit card and credit cards.

13. Web banking
Web banking is a part of online banking where the customer can access their bank account and perform the financial transactions by accessing the internet and through authorized banks secure web page.
CHAPTER II
REVIEW OF LITERATURE AND RELATED STUDIES

This chapter demonstrates the definitions of the variables and related literatures regarding the key factors influencing the customer satisfaction and customer loyalty in Net banking banks. The main objective of this chapter is to present the literature which contributed in building the research framework. There are three parts in this chapter. The first part comprises of the important definitions and theories that can help support the independent and dependent variables, the second part presents all the related literatures which are the basis of the relationships between the proposed factors; and the third part discusses and summarizes the previous studies.

2.1 Definition, Theories and Features of Independent Variables

2.1.1 Confidence Benefits to Customer

Ruiz-Molina et al. (2009) described the confidence benefits as the psychological factors associated with the feeling of security, trust, reduced anxiety in the current service providers. Sheth and Parvatiyar (1995) related confidence benefits with the familiarity, friendship, social support and interpersonal recognition. Kaur et al. (2011) associated trust and reputation with the confidence benefits. Hennig-Thurau et al. (2002) identified confidence benefit as one of the factors that contributes to the customer satisfaction and loyalty in the financial market. Butscher (2002) suggested that banks confidence benefits is one of the key decision making criteria for the bank selection by the customers. De Wulf et al. (2003) noted that confidence benefits can strengthen trust of the customer while lack of confidence can increase the probability of switching behavior.

2.1.2 Core service quality of bank

Oyeniyi and Abiodun (2010) define service quality as assessment of as how well a delivered service confirms the client’s expectations. According to Gronroos (2000), service is defined as intangible offerings which are produced and consumed simultaneously at the same period. The interaction between the service provider and the consumer renders the services to customers. Driver and Johnson (2001) explained that the interaction of service provider and the customer establish a opportunity for the
customers to analyze and evaluate the quality of the services. Aydin and Ozer (2005) conceptualized service quality as the customers overall assessment to the relative superiority or inferiority of the service and the service providers. Past empirical researches have shown that service quality is a multi-dimensional construct and it varies from organization to organization.

Kamilia and Jacques (2000) noted that in the banking organization the dissatisfaction to the customers arises from the perceived service of the bank and the actual service provided by the bank. Avkiran (1994) has identified four dimensions of the service quality in banks. They are: bank functionality, credibility, communication and access to bank services.

2.1.3 Physical Layout

Nguyen & Leblanc (2002) defined physical environment as the packaging of services that has three components: ambient conditions, spatial layout and décor and orientation signals. It is not necessary that physical environment shape a brand image but the service and hospitality area had a much impact on customer revisit and brand image through attractive interior design and decoration, prepared background, music, visual appearance of the machineries. In Net banking system, physical environment and tangible includes the interior décor and layout of the interface of automatic teller machines, mobile applications, web applications, status of machineries and website and mobile application architecture. Sangeetha and Mahalingam (2011) defined physical layout as a dynamic driver which includes a social dimension and customers are regarded as active creators of their own experience. Santos (2002) stated that the dimension of service quality directly influence on customer satisfaction and any behavioral intentions of banks. Ladhari (2009) concluded that physical environment is one of the vital components of every restaurants, hair salons and banks and client satisfaction is significantly affected by tangible factors.

2.1.4 Service Accessibility

Spake and Megehee (2010) defined service accessibility as design of products, devices, services or environment for people to access the service directly (unassisted), indirectly (assisted) and/or help of assistive technology conveniently and efficiently. Nguyen & Leblanc (2002) noted that perception of customers in regards to the
convenience in accessibility of the service rendered by the service provider is highly correlated with the satisfaction and the brand value of the service provider. Tesfom and Birch (2011) noted that convenience and the service accessibility helps to change the perception of the customers which might contribute to make their decision to switch the service provider or not. Sharma and Patterson (2000) further more added that if the customer has access to the service easily and conveniently then they might to continue to use the service even if the service quality is poor.

2.1.5 Social Benefits to Customer

Spake and Megehee (2010) defined social benefits as interpersonal relationship between the customer and the service provider ensuring mutual, long-term relationship and benefits for both the parties. Spake and Megehee (2010) further added that, social benefits makes customer feel they are important part of the business while in other hand service providers benefit by the decrease in cost of serving customers resulting increase in profits, increase in positive word of mouth referrals and also establishing a key switching barrier for the customers. Gwinner, Gremler and Bitner (1998) further added that social benefits imposes as key factors for the customer retention in any organization. Sweeney (2002) verified that social benefits play key part in the service industry. As, service industry is kindly based on the interaction of customer and service provider, customer satisfaction and repurchase intention is largely based on the social benefits between the customer and the service provider. In banking industry, proper greeting by the staffs, staffs and applications responding with first names and responding to problems and feedbacks efficiently develops a social relationship. Ruiz-Molina et al. (2009) believed that social benefits may vary from one industry to another but they too agree on the fact that Social benefits is one of the primary switching barrier.

2.1.6 Special treatment benefits

According to Colgate and Lang (2001), special treatment benefits consist of an extensive range of benefits or economic advantages which come in the form of first rate levels of service, preferential treatment, special operation conditions and time saving. Ruiz-Molina et al. (2009) describes the special treatment benefits as the psychological factors associated with the feeling of being special, unique and important to the service providers which makes customers delighted and satisfied. Sheth and Parvatiyar (1995) defined special treatment benefits as extensive range of benefits or economic
advantages which come in the form of first rate levels of service, preferential treatment, special operation conditions and time savings. Kaur et al. (2011) indicated that special treatment benefits have significant influences on satisfaction. Hennig–Thurau et al. (2002) identified special treatment will have reasonable impact on customer satisfaction and loyalty in the financial market. Butcher (2002) suggested that special treatment benefits are one of the key decision making criteria for the bank retention by the customers. De Wulf et al. (2003) noted that special treatment benefits can strengthen trust of the customer while lack of it can increase the probability of switching behavior.

2.2 Definition, Theories and Features of Moderating Variables

2.2.1 Customer Satisfaction

According to Churchil and Surprenant (1982), customer satisfaction is an output, resulting from the customer’s pre-purchase comparison of expected performance with perceived actual performance and incurred cost. Pieter and Willem (1990) defined customer satisfaction as an output of purchase and consumption, resulting from a buyer’s analysis of the benefits and costs of the purchase in relation to the perceived consequences. Huiqun and Zhao (2011) define customer satisfaction as a post consumption judgment regarding a specific product or service. They further justify that it is the result of a judgmental process that differentiates pre-purchase perceptions and expectations with actual performance during and after the consumption. Aydin and Ozer (2005) noted that a customer will be satisfied and continue using product or service if the difference between reward and cost is favorable. Pieter and Willem (1990) further added that satisfaction is a new standard for measuring the business performance and also a new dimension of concept to help organization maximize their performance potential.
2.3 Definition, Theories and Features of Dependent Variables

2.3.1 Customer Loyalty

Clemes et al. (2010) described customer loyalty as the result of consistent positive emotional experience, physical attribute-based satisfaction and perceived value of an experience, which includes the product or services. Al-hawari (2014) defined customer loyalty as the degree to which customer shows repurchase behavior for specific products or services. Li and Green (2011) concluded that loyalty is key driver for the financial success especially in present volatile economy. Oliver (1997) developed a comprehensive model of customer loyalty where there are 4 sequence levels. They are cognitive loyalty, affective loyalty, conative loyalty and action loyalty. Dick and Basu (1994) believed that customer loyalty includes both behavior and the psychological aspects. Uncles et al. (2003) noted that loyal customers are best brand ambassadors of the company as they help to spread positive word of mouth. Although, many empirical research associate customer loyalty with satisfaction, Al-hawari (2014) argued that switching barriers also influence the loyalty. Ranaweera and Prabhu (2003) stated that customer loyalty is a crucial switching barrier for the customers.

2.4 Related studies regarding Independent, Moderating and Dependent variables

2.4.1 Customer confidence benefits and customer satisfaction

Gwinner et al. (1998) linked that relational benefits such as social benefits, confidence benefits, special treatment benefits have strong and significant relationship with the customer satisfaction. Colgate and Lang (2001) indicated that strong confidence benefits and interpersonal relationship positively affect the customer purchase intentions. They further noted that confidence benefit is as strong switching barrier. Ruiz-Molina et al. (2009) further argued that relational benefits especially confidence benefits work as switching barrier, especially on the service industry that require high level of personal contact and high customer involvement such as banking, hairdressing and restaurant. Al-hawari(2014) agreed that confidence benefit has a strong positive relationship with the customer satisfaction.
2.4.2 Core service quality and customer satisfaction

Hess et al. (2003) concluded that higher service quality provided by the service provider could actually motivate the relationship with the customer. Anton et al. (2007) concluded that positive gap between actual service delivered and consumer service quality perception decreases the consumer intention to leave the service provider. Huang et al. (2007) also confirmed that favorable service quality and satisfaction helps in promoting customer loyalty and retaining the customer. Lee et al. (2007) founded that switching intentions in the customer may be due to dissatisfaction of the service provided by the service provider and the switching intentions is subject to degree of switching cost associated with the service category. Al-hawari (2014) also noted that there was significant negative relationship between service Quality and customer switching intentions. Shin and Patterson (2000) also concluded that there is a significant relationship existing between perceived service quality and customer satisfaction.

2.4.3 Physical Layout and customer satisfaction

Tesfom and Birch (2011) noted that physical layout helps customer to perceive satisfaction through attractive interior design and decoration, prepared background, music, visual appearance of employees and machineries, website layout, application visuals etc. Valenzuela and Raghubir (2010) stressed out tangible factors helps to develop customer satisfaction in customer’s subconscious mind. He further stressed that tangible factors and physical environment helps to build a favorable brand image about the service provider. Further more, Colgate and Lang (2001) noted that customers remain in relationship with their current service provider as they don’t believe that the alternative service provider could be more attractive than the present one. Patterson & Smith (2003) argued that a dissatisfied customer would be more likely to remain loyal to the present service provider if they believe the tangible properties of the alternatives are not favorable. White and Yanamandram (2007) agreed that attractive tangible factors may lead customers satisfaction and customer loyalty. On contrary, if the customers perceive a better alternative, customer will cease the relationship with the current service provider.
2.4.4 Service accessibility and customer satisfaction

Keavney (1995) noted that in service industry particularly financial service, food and beverage and fashion service industry; service accessibility has wider implication regarding the customer satisfaction. Colgate and Lang (2001) agreed to the above statement and stressed that service accessibility is most influential factor for customer satisfaction. Clemes et al. (2010) ranked service accessibility as the second most influential factor regarding customer satisfaction in their empirical study. Gerrard and Cunningham (2000) study indicated that service accessibility plays more influential role in banking sector more than bad service quality or lack of response to service failure. Wang and Wu (2012) stressed that if the service or the service provider is not easily accessible then it leads to the customer switching actions. Al-hawari (2014) confirmed that unfavorable accessibility of service is major influential factor for the customer to switch the service provider.

2.4.5 Customer Social Benefits and Customer satisfaction

Many past empirical researches including Park and Kim (2003) confirmed a link between customer social benefits and its outcomes such as satisfaction, trust and customer loyalty. Social intimacy leads to the favorable customer loyalty in the business (Gwinner et al., 1998). Marketing outcomes such as customer satisfaction is most valuable to the business which could be perceived through good customer relationship strategies (Valenzuela and Raghubir, 2010). Gwinner et al. (2010) concluded that there is positive, strong and significant relationship between the social benefits and the customer loyalty. Bove and Johnson (2000) investigated that better value of the social benefits may lead to the long term customer satisfaction even if the customer perceived service is inferior in comparison to other competitors. Al-hawari (2014) concluded that relational benefit such as social benefit has significant relationship with the satisfaction.

2.4.6 Customer special treatment benefits and Customer satisfaction

Numerous studies investigated that relational benefits i.e. special treatment benefits are most significant factors influencing customer satisfaction and switching switching (Beerli and Martín, 2003). Special treatment benefits has also been regarded as moderator in satisfaction-moderator relationship in many empirical researches (Yang
Yang and Peterson (2004) also argued that special treatment benefits have been a bigger significant factor than they used to be in the past due to technological revolution and intense competition. Further, Wang and Wu (2012) indicated that when special treatment benefits of any service provider increases, the possibility of customer engaging in switching behavior decreases as it imposes as switching barrier. El-Manstrly et al. (2011) highlighted that in the financial industry, special treatment benefits are the significant motivator for the customer to retain to the same service provider even if the customer is dissatisfied. Al-hawari (2014) concluded that special treatment benefits have significant and positive relationship with the customer loyalty.

**2.4.7 Customer Satisfaction and Customer loyalty**

Huang et al. (2007) confirmed that satisfied customers ultimately leads to customer loyalty and retaining the customer. Clemes et al. (2010) also supported the notion that higher customer satisfaction leads to higher customer loyalty towards the service provider and the probability of customer switching the service provider is gradually diminished. Kaur et. al (2011) also confirmed that positive gap between actual and the expected service leads to higher customer satisfaction and ultimately higher customer loyalty. Numerous studies investigated the factors of customer loyalty and most significant of which are customer satisfaction and switching costs (Beerli and Martín, 2003). White and Simon (2012) noted that probability of customer intention to switch banks is negligible if the service is relatively enjoyed by the consumer on the contrary, they seek long term relationship.

**2.5 Previous Studies**

Al-hawari (2014) studied “Emotional stability and switching barriers in the retail banking Context in UAE”. The purpose of the study was to investigate the relationship between switching barriers and bank customer loyalty. This study examined five independent variables which are social benefits to the customer, confidence benefits to customer, special treatment benefits to customer, switching cost to the customer and availability and attractiveness of the alternatives (AAA) to the customers; one moderating variable which is emotional stability and one dependent variable which is Customer loyalty. The data sample of this study comprises 413 respondents from different major cities of United Arab Emirates (UAE). Self Administered questionnaire
comprising seven different sections were employed for the data collection. All statements of the questionnaire were measured using five point likert scale. The hypothesis and the model were tested using structural equation modeling (SEM). It was concluded that social benefits, confidence benefits and switching cost affected the customer loyalty of bank in the positive manner. Among these factors, switching barrier was ranked as most important factor influencing customer loyalty among less emotionally stable customers compared to that of highly emotionally stable customers.

Kaur et al. (2011) studied “Exploring customer switching intentions through relationship marketing paradigm”. The purpose of the study was to investigate customer switching and reasons underlying the customer switching intentions. Sample size of 800 bank customers were taken into consideration among total population of 71,600 from Northern cities of India. These respondents were personally contacted to gather the data. There was four independent variables i.e. service quality, Customer satisfaction, customer trust and customer commitment; two moderating variables i.e customer loyalty and customer switching intentions and one depending variable i.e. switching behavior. Multiple regression and Confirmatory Factor analysis (CFA) was employed to investigate and analyze the model and hypotheses. The study founded that service quality, customer satisfaction and customer trust could significantly predict customer switching behavior.

Clemes et al. (2010) studied “Customer Switching behavior in the Chinese retail banking industry”. The purpose of the study was to analyze and rank the factors influencing customer switching behavior. The data analysis was conducted using obtained data from 421 bank customers of Jiazu City, Henan Province, China. Convenience sample was employed to collect the data. The decision of customer to switch the banks was hypothesized as function of price of bank, service quality of bank, effective advertisement competition from banks, involuntary switching of customers, distance of customers to the bank, customer switching costs, and demographic characteristics. In order to investigate the hypothesis and conceptual model, Multiple regression analysis and Structural Equation Modelling was employed. The research concluded that Price of the bank, Bank Reputation, Service quality of Bank, effective advertisement of the bank and customer switching cost are significant factors which could predict the tendency of the customers switching behavior.
Amin (2016) studied “net banking users’ behavior: e-service quality, attitude and customer satisfaction”. The purpose of the paper was to examine the internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty. 1000 questionnaires were distributed and 520 respondents data were collected for the study. The paper had four independent variables i.e. personal need, site organization, user friendliness and efficiency of website. Multiple regression was employed to find out the relationship between independent and dependent variables. The finding found that the relationship between internet banking service quality, e-customer satisfaction and e-customer loyalty are significant.

Lee and Li (2013) studied “customer perception of e-service quality in online banking”. The purpose of the paper was to examine the relationship among e-service quality dimensions and overall service quality, customer satisfaction and purchase intentions. The independent variables included were web design, reliability, responsiveness and trust affect. Multiple regression was employed to find out the relationship between independent and dependent variables. The result was based on the 297 online consumers. Multiple regression was employed to find out the relationship between independent and dependent variables. The result focused that web design, reliability, responsiveness and trust affected service quality.

Jun and Palacios (2016) studied “examining the key dimensions of mobile banking service quality”. The purpose of the paper was to identify the key dimensions of mobile banking in service quality. The researcher employed the critical incident technique to unveil the key dimensions of m-banking service quality as perceived by mobile banking customers and to identify critical satisfiers/dissatisfiers among the identified dimensions. The analysis revealed that total of seventeen dimensions of mobile banking among which five dimensions were considered main sources for customer satisfaction or dissatisfaction.

Molina et al. (2007) studied “relational benefits and customer satisfaction in retail banking”. The study intended to analyze the impact of the relational benefits on customer satisfaction in retail banking. Self administered questionnaire were employed to gather the data from sample size of 296 customers of bank from Rajasthan, India. Convenience sampling method was employed to gather the data. Six independent variables were investigated to study the relationship with customer satisfaction in bank.
which were special treatment benefits, social benefits, confidence benefits, frontline employee satisfaction, accessibility and finally service policy. Structural equation modeling was employed to analyze and investigate the relationship. The study reported that confidence benefits have direct, positive effects on the satisfaction of customers with their bank. However, special treatment benefits and social benefits didn’t have any significant effects on satisfaction in retail banking environment.

Jamal and Naser (2003) studied factors influencing customer satisfaction in the retail banking sector in Pakistan. There were four independent variables selected for the research which were relational, core, features and non-loading items. For the research, 300 questionnaire were randomly distributed to customers of specific banks in Pakistan. Multiple regression was employed to find out the relationship between independent and dependent variables. The research concluded that there was strong relationship between service quality and customer satisfaction. However, there was no relationship between customer satisfaction and tangible aspects of the service environment.

The summary of the previous studies are as follows:

**Table 2: The Summary of Previous Studies**

<table>
<thead>
<tr>
<th>Researcher(s)</th>
<th>Objective</th>
<th>Methodology</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amin (2016)</td>
<td>To examine the internet banking service quality and its implications on e-customer satisfaction and loyalty.</td>
<td>Multiple Regression Analysis</td>
<td>Personal need, site organization, user friendliness and efficiency of website were significant factor influencing customer satisfaction and loyalty.</td>
</tr>
<tr>
<td>Researcher(s)</td>
<td>Objective</td>
<td>Methodology</td>
<td>Main Findings</td>
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<tr>
<td>Jun and Palacios (2016)</td>
<td>To identify the key dimensions of mobile banking.</td>
<td>Critical Incident Technique</td>
<td>Mobile convenience, accuracy, diverse mobile application service features, ease of use and continuous improvement are main sources of customer satisfaction.</td>
</tr>
<tr>
<td>Al-hawari (2014)</td>
<td>To explore the relationship between switching barriers and bank customer loyalty in UAE</td>
<td>Structural Equation Modeling and Multiple Regression</td>
<td>Social benefits, confidence benefits and switching costs influenced the switching barriers in positive manner</td>
</tr>
<tr>
<td>Lee and Li (2013)</td>
<td>To examine the relationship among e-service quality dimensions and overall service quality, customer satisfaction and purchase intention.</td>
<td>Multiple Regression</td>
<td>Website design, reliability, responsiveness and trust affect overall service quality and customer satisfaction.</td>
</tr>
<tr>
<td>Researcher(s)</td>
<td>Objective</td>
<td>Methodology</td>
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<td>Kaur et al. (2011)</td>
<td>The purpose of the study was to investigate customer switching and reasons underlying the customer switching intentions in Northern Cities of India.</td>
<td>Multiple regression, and Confirmatory Factor analysis (CFA)</td>
<td>The study founded that there service quality, customer satisfaction and customer trust could significantly predict customer switching behavior.</td>
</tr>
<tr>
<td>Clemes et al. (2010)</td>
<td>The purpose of the study was to analyze and rank the factors influencing customer switching behavior in Hunan Province, China.</td>
<td>Multiple Regression</td>
<td>The research concluded that Price of the bank, Bank Reputation, Service quality of Bank, effective advertisement of the bank and customer switching cost are significant factors which could predict the tendency of the customers switching behavior.</td>
</tr>
<tr>
<td>Researcher(s)</td>
<td>Objective</td>
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<td>Main Findings</td>
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<tr>
<td>Molina <em>et al.</em> (2007)</td>
<td>To investigate the impact of relational benefits on customer satisfaction in retail banking in Spain.</td>
<td>Structural equation modeling</td>
<td>Confidence benefits have direct positive effect on the satisfaction of customers however, special treatment benefits and social benefits didn’t have any significant effects.</td>
</tr>
<tr>
<td>Jamal and Naser (2003)</td>
<td>To identify the various factors that determine customer satisfaction in retail banking sector in Pakistan.</td>
<td>Multiple regression analysis</td>
<td>There was strong relationship between service quality and customer satisfaction. However, there was no relationship between customer satisfaction and tangible aspects of the service environment.</td>
</tr>
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</table>
CHAPTER III
RESEARCH FRAMEWORK

There are four parts in this chapter. First part is theoretical framework. Second part is conceptual framework which is conceptualized based on the theoretical framework and previous research framework. Third part is research hypothesis that shows the relationship between dependent variables and independent variables. And, fourth part is operational variable that shows the relationship between variables and operational components.

3.1 Theoretical Framework

According to the Zikmund (2010), theoretical framework is set of explanations of the phenomenon under the given assumptions. The researcher developed the theoretical framework which investigates the relationship between the core service quality, special treatment benefits, social benefits, confidence benefits, tangibles, accessibility, and customer satisfaction with customer loyalty.

First theoretical framework was designed by Molina et al. (2007) who studied “Relational benefits and customer satisfaction in retail banking”.

The second theoretical framework was developed by Mohsan, F., Nawaz, M. M., & Khan, M. S. (2011) who studied “Impact of customer satisfaction on customer loyalty and intentions to switch: Evidence from banking sector of Pakistan.”

The third theoretical framework was designed by Al-hawari (2014) who studied Emotional stability and switching barriers in the retail banking context.

The details of these three research models are as follows:

3.1.1 Theoretical Framework 1

First theoretical framework was designed by Molina Et al. (2007) who studied “Relational benefits and customer satisfaction in retail banking”. The paper investigated the effect of the customer relational benefits with the consumer satisfaction in the banking industry.
Their model included special treatment benefits, social benefits, confidence benefits, frontline employee satisfaction, accessibility and service policy. The framework is illustrated in following figure:

**Figure 3.1: Theoretical Framework 1**


The data for the study was obtained using convenience sampling method from 204 respondents in Spain. The customer satisfaction was hypothesized as function of confidence benefits, social benefits, special treatment benefits, frontline employee satisfaction, accessibility and service policy.

Factor analysis and regression analysis was employed to investigate the data and identify the significant factors that impacted the customer satisfaction.

The result concluded that confidence benefits have direct and positive effect on the satisfaction of the customers where as social benefits and special treatment benefits didn’t have significant impact.

From the theoretical Framework 1, the independent variables accessibility, social benefits and confidence benefits are considered for the conceptual framework.
3.1.2 Theoretical Framework 2

The second theoretical framework was developed by Mohsan, F., Nawaz, M. M., & Khan, M. S. (2011) who studied “Impact of customer satisfaction on customer loyalty and intentions to switch: Evidence from banking sector of Pakistan.”

The model of the study has four independent variables which are core service quality, relational benefit and tangibles; two moderating variables which are service feature enabling and competitive factor; and one dependent variable which is customer satisfaction. The figure of the framework is illustrated below:

**Figure 3.2 : Theoretical Framework 2**

![Theoretical Framework 2 Diagram](image_url)

Data collected from 300 bank customers were taken into account for the study from Pakistan. Multiple regression and correlation was employed to test the relationship between the independent and dependent variable. The findings of the study was there was a strong relationship between the core service quality of the bank and the customer satisfaction. However, the paper discussed that there is no relationship between the tangible aspects of the bank and the customer satisfaction.

Therefore, independent variable core service quality is considered for the conceptual framework. Moreover, Colgate (2001) concluded that tangible aspects in the service environment are one of the significant factor thus the researcher also considers tangible factor for the conceptual framework.

3.1.3 Theoretical Framework 3

The third theoretical framework is “Emotional stability and switching barriers in the retail banking context” by Al-hawari (2014). The purpose of the paper was to study the relationship between the switching barriers and the bank customer loyalty in the UAE.

The researchers developed a model with five independent variables, one moderating variable and one dependent variables. They have hypothesized that customer loyalty of customers of bank is affected by five independent variable namely social benefits, confidence benefits, special treatment benefits, switching cost and attractiveness of alternatives. The moderating variable was emotional stability.

Data was collected from 413 bank customers using self-administered questionnaire (SAQ) and the model was tested by employing multiple regression and correlation techniques to examine the relationship between independent and dependent variables. The findings of the research concluded that Social benefits, Confidence benefits, Switching Cost and Attractiveness of Alternatives has significant relationship on the customer loyalty.

Therefore, switching barriers such as social benefits, confidence benefits, special benefit treatments are relevant for the study. Moreover, the researcher has hypothesized that there is relationship between customer loyalty and customer Satisfaction. The theoretical framework diagram is demonstrated as follows:
3.2 Conceptual Framework

Sekaran (2003) described conceptual framework as the researchers own model and it expounds the relationship between the independent and dependent variable. Based on the theoretical framework from the previous empirical researches on the similar topics, the researcher have developed their own conceptual framework which they believe could investigate the factors influencing customer satisfaction and customer loyalty in commercial banking. The conceptual framework for the study is illustrated in the following diagram:

The researcher has identified six key factors that could affect the customer satisfaction and customer loyalty. There are six independent variables. They are core service quality, special treatment benefits, social benefits, confidence benefits, physical layout and accessibility. There is one moderating variable: customer satisfaction. The depending variable is customer loyalty.

Based on the theoretical framework developed by Molina et al. (2007), independent variables social benefits, confidence benefits and accessibility are considered for the conceptual framework. The research findings revealed that these have significant impact on the customers switching behavior. In the factor analysis of
the data, confidence benefits, social benefits and accessibility were ranked 1\textsuperscript{st}, 2\textsuperscript{nd} and 3\textsuperscript{rd} respectively.

From the theoretical framework 2 designed by Jamal and Naser (2003), independent variables. Core service quality and physical environment are considered for the study. Gupta and Dev (2012) have added tangibles with physical environment because the variable explains the wholistic environment of real and virtual banking. The findings of the research concluded that core service quality had direct relationship with the customer satisfaction. The relational factors has not been considered as they already are considered from framework 1. Gwinner \textit{et al.} (1998) categorizes relational benefits as social, confidence and special treatment benefits. Thus, relational benefit variables overlaps the factors considered from Theoretical Framework 1.

From the third framework developed by Al-hawari (2014), special treatment benefits has been considered as independent variable and customer loyalty as the dependent variable. Special treatment benefits was not significant in the findings of the research from Molina \textit{et al.} (2007) however, findings from Al-hawari (2014) concluded that it is important factor. The findings from the empirical research justify that among five independent variables, these four had statistical significant relationship with customer loyalty. Among these four, social benefit and switching cost had higher coefficient of multiple regression indicating that proportion of the variance of customer loyalty which is mostly predictable by social benefits and switching cost.

### 3.3 Hypothesis

Sekaran (1992) noted that hypothesis is an assumption that a researcher makes about some characteristics of population under study. Based on the conceptual framework, research and statistical hypothesis were developed to investigate the factors that affect the customer switching behavior in commercial banks. According to Zikmund (2010), research hypothesis are the testable statements whose truth or falsity could be tested by recording data on the subject of interest while statistical hypothesis are the developed based on the research hypothesis and includes mutually inclusive and mutually exhaustive; also known as null and alternative hypothesis.
3.3.1 Research Hypothesis

The research hypothesis for the study are as follows:

H1a: Core service quality of bank explains unique variance for customer satisfaction of the bank.

H1b: Social benefits to the customers explains unique variance customer satisfaction of the bank.

H1c: Confidence benefits to the customers explains unique variance for customer satisfaction of the bank.

H1d: Physical Layout of bank explains unique variance for customer satisfaction of the bank.

H2: There is significant statistical relation between consumer satisfaction and customer loyalty.

H3: There is significant statistical relation between special treatment benefits and customer satisfaction.

H4: There is significant statistical relationship between accessibility and customer satisfaction.

3.3.2 Statistical Hypothesis

Based on these research hypothesis; following are the statistical hypothesis that will be tested for the study:

H1o: Core service quality, social benefits, confidence benefits and physical & tangible characteristics has no significant influence on customer satisfaction of the bank.

H1a: Core service quality, social benefits, confidence benefits and physical Layout has significant influence on customer satisfaction of the bank.

H2o: There is no significant relation between customer satisfaction and customer loyalty to the bank.
**H2**: There is significant relation between customer satisfaction and customer loyalty to the bank.

**H3**: There is no significant relation between special treatment benefits and customer satisfaction to the bank.

**H3a**: There is significant relation between special treatment benefits and customer satisfaction to the bank.

**H4**: There is no significant relation between accessibility and customer satisfaction to the bank.

**H4a**: There is significant relation between accessibility and customer satisfaction to the bank.

All these hypothesis will be tested with the level of significance (\(\alpha\)) set at 5%. Bhattacherjee (2012) defined level of significance as the probability of rejecting the null hypothesis when it is true. Thus, 5% of error is tolerated for the study. Thus, if the p value of the hypothesis is more than 0.05, then the null hypothesis is failed to reject but if the p values is less than 0.05 then the null hypothesis is rejected.

### 3.4 Operationalization of variables

Zikmund (2010) defines operationalization of variables as the procedure of systematic and strict definition of variables into the measurable factors. In other words, operationalization of the variables defines how the variables are quantified and measured. The operationalization of variables used in the conceptual framework as follows:
Table 3.4: Operationalization of Variables

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Concept of Variable</th>
<th>Operational Component</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Core service Quality</td>
<td>Oyeniyi and Abiodun (2010) defines service quality as assessment of how well a delivered service confirms the client’s expectations.</td>
<td>1. I don’t have to wait longer time for transaction. 2. The bank doesn’t take long time to solve my problem. 3. The bank’s remittance or fund transfer system is efficient. 4. The bank’s record maintenance procedure is error free. 5. The bank’s back support staff have required knowledge and abilities. 6. The charges collected by bank on the various services like fund transfer, payment of utilities, debit and credit cards etc are nominal.</td>
<td>Interval Scale</td>
</tr>
<tr>
<td>No</td>
<td>Variable</td>
<td>Concept of Variable</td>
<td>Operational Component</td>
<td>Measurement</td>
</tr>
<tr>
<td>----</td>
<td>----------</td>
<td>---------------------</td>
<td>-----------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>7.</td>
<td>The interest rates charged on loan by the bank are reasonable.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>The interest rates offered by the bank on various deposits are quite good.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>The bank’s various schemes are useful and convincing.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Special treatment benefit</td>
<td>According to Colgate and Lang (2001), special treatment benefits consist of an extensive range of benefits or economic advantages which come in the form of first rate levels of service, preferential treatment, special conditions and time saving.</td>
<td>10. I feel my personal needs have been met when using the service of the bank. 11. The banks provide special gifts or services on basis of certain loyalty points collected from bank transactions. 12. The electronic portals recommend me service and information according to my preference.</td>
<td>Interval Scale</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Concept of Variable</th>
<th>Operational Component</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Social Benefit</td>
<td>Spake &amp; Megehee (2010) defined social benefits as interpersonal relationship between the customer and the service provider ensuring mutual, long-term relationship.</td>
<td>13. The back staff of bank treat me nicely and in friendly manner. 14. Bank show sincere interest in solving customer problems 15. It is easy to communicate and provide feedback to the bank.</td>
<td>Interval Scale</td>
</tr>
<tr>
<td>4</td>
<td>Confidence Benefit</td>
<td>Ruiz-Molina, Gil-Saura and Berenguer-Contreras (2009) describes the confidence benefits as the psychological factors associated with the feeling of security, trust, reduced anxiety in the current service providers</td>
<td>16. I trust my bank. 17. I have confidence that the electronic portals of banks perform the bank operations correctly. 18. I have no anxiety while dealing with the bank. 19. I have confidence at the functioning in the operation of electronic transaction of the bank.</td>
<td>Interval Scale</td>
</tr>
<tr>
<td>No</td>
<td>Variable</td>
<td>Concept of Variable</td>
<td>Operational Component</td>
<td>Measurement</td>
</tr>
<tr>
<td>----</td>
<td>----------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>5</td>
<td>Physical layout</td>
<td>Nguyen and Leblanc (2002) defined physical environment and tangible characteristics as packaging of services that has three components: ambient conditions, spatial layout and décor and signals.</td>
<td>20. The bank has modern equipment’s (ATM, CDMs, computers, cash counting machines etc). 21. The interface of ATM, CDM, mobile application and website are user friendly and easy to learn. 22. The interface of ATM, CDM, mobile application and websites have easy functioning and less time consuming. 23. The mobile application and the website are visually appealing. 24. The user interface of the electronic portals are convenient and easy to use.</td>
<td>Interval Scale</td>
</tr>
<tr>
<td>No</td>
<td>Variable</td>
<td>Concept of Variable</td>
<td>Operational Component</td>
<td>Measurement</td>
</tr>
<tr>
<td>----</td>
<td>----------</td>
<td>---------------------</td>
<td>-----------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>6</td>
<td>Accessibility</td>
<td>Spake and Megehee (2010) defined accessibility as design of products, devices, services or environment for people to access the service directly, indirectly and/or with help of technology conveniently and efficiently.</td>
<td>25. The branches of banks and ATMs, CDMs are accessible and in convenient locations&lt;br&gt;26. The electronic cards (ATMs, Credit cards) can be accessed from ATMs or POS machines without any errors.&lt;br&gt;27. The application and website can be accessed 24 hours without slowing of the system.</td>
<td>Interval Scale</td>
</tr>
<tr>
<td>No</td>
<td>Variable</td>
<td>Concept of Variable</td>
<td>Operational Component</td>
<td>Measurement</td>
</tr>
<tr>
<td>----</td>
<td>------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
</tbody>
</table>
| 7  | Customer Satisfaction | Churchill and Surprenant (1982), defined customer satisfaction is an output, resulting from the customer’s pre-purchase comparison of expected performance with perceived actual performance and incurred cost. | 28. I am satisfied with the card banking experience  
29. I am satisfied with the net banking experience  
30. I will continue using this bank in the future.                                                                                                                | Interval Scale |
| 8  | Customer Loyalty  | Clemes et al. (2010) describes customer loyalty as the result of consistently positive emotional experience, physical attribute-based satisfaction and perceived value of an experience, which includes the product or services. | 31. This bank is my first choice  
32. I will recommend this bank to others  
33. I am not willing to change this bank.                                                                                                                 | Interval Scale |
CHAPTER IV
RESEARCH METHODOLOGY

This chapter describes the research methodology and provides step-by-step procedures of how this research will be conducted. There are six sections in this chapter. The first section explains the research methods which are used for this study to evaluate the consumer satisfaction and consumer loyalty in the Net banking customers in Bangkok’s central business districts. The second section demonstrates the information regarding the respondents and sampling procedures, followed by the third section which focuses on the research instruments and questionnaire. The fourth section presents the pretests and the fifth section explains how the data will be collected and both primary and secondary data that will be employed in the study. Finally, sixth section presents the statistical treatment of the data and with a summary of statistical tools that will be used in testing the hypothesis.

4.1 Method of Research Used

Two types of research method i.e. descriptive and inferential research will be used for the study. Descriptive research is intended to portray the participants in a precise way. The major idea of descriptive research is to describe the characteristics of a population. According to Zikmund (2010), descriptive research is used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation. The methods involved range from the survey which describes the status quo, the correlation study which investigates the relationship between variables, to developmental studies which seek to determine changes over time. Friedman (1957) defined that descriptive research helps to describe the characteristics of a population or phenomenon and also seeks to determine the answers to who, what, when, where and how questions. Also Bhattacherjee (2012) stated that descriptive research are directed to make careful observations and detailed documentation of a phenomenon of interest and also these observations must be based on the scientific method (i.e., must be replicable, precise, etc.).

In addition, the data for this study will be collected by using survey method. Zikmund (2010) defined that survey as a research technique in which formation is gathered from a sample of people use of a questionnaire, a method of data collection
based on communication with a representative sample of the target respondent. A self-administered questionnaire (SAQ) will be used for the purpose of the collecting the data from the sample survey. Lavrakas (2008) defined SAQ as questionnaire designed specially to be completed by an individual without the intervention of the researcher or the interviewer.

4.2 Respondents and Sampling Procedures

There are four parts included in this section: the first part discusses the target population, the second part explains the sample of the sampling unit, the third part determines the sample size and the last part explains the sampling procedures.

4.2.1 Population

According to White (2012), population refers to the total set of observations that can be made. The population of this research comprises of all the existing customers of commercial banks who have experienced web and mobile banking in Thailand. The customers from different demographic background perceive their bank’s services differently and will provide necessary details about what factors can affect the consumer satisfaction and customer loyalty. The research is based on consumer satisfaction and consumer loyalty of bank customers, so the researcher will select bank customers as their respondents.

According to World Bank (2016) Global Findex report, in Thailand 78% of the population over 15 years has a bank account. In addition, Worldo meters (2016) estimates that number of population over 15 years in Thailand is 55,795,427. That concludes 43,520,443 Thai individuals have at least one bank account. According to bank of Thailand (2015); 24,465,925 users have registered for web and mobile banking in Thailand.

4.2.2 Sampling Unit

Zikmund (2010) defined sampling unit as a single element or a group of elements to selection in the sample. The goal of sampling is to enable researchers to estimate some unknown characteristic of population. Gilbert (1999) define sample unit as group of people who takes part in the study and represent the whole population.
Therefore for this study, the all the bank customer in Bangkok who use all forms of modern banking; represent the sampling unit of this study.

4.2.3 Sample

According to White (2012), sample can be defined as the subset or parts of larger population. The researcher is testing his conceptual model in the Bangkok area due to convenience and economical factor thus the bank customers from the Bangkok area are taken as sample for the study. The respondents were all the customers of the banks who use net and/or mobile banking in the Bangkok.

4.2.4 Sample Size

According to Zikmund (2010), sample size can be defined as the number of observations or cases specified by the estimated variance of the population, the magnitude of acceptable error, and the confidence level. We know that the population of customers using net banking in Thailand is approximately 23,365,925. Thus, we can determine the population sample with the statistical formula. According to the Zikmund (2010);

1. **Sample Size Calculation:**
   \[
   \text{Sample Size} = \frac{(\text{Distribution of 50\%})}{((\text{Margin of Error}\% / \text{Confidence Level Score})^2)}
   \]

2. **Finite Population Correction:**
   \[
   \text{True Sample} = \frac{(\text{Sample Size } \times \text{Population})}{(\text{Sample Size } + \text{Population } - 1)}
   \]

So, on the basis of the formula,

1. Sample Size = \(\frac{(0.5 \times (1-0.5))}{((0.05/1.96)^2)}\)
   \[
   \text{Sample Size} = 0.25 / ((0.0255)^2)
   \]
   \[
   \text{Sample Size} = 0.25 / 0.00065077
   \]
   \[
   \text{Sample Size} = 384.16
   \]

2. True Sample = \(\frac{(384.16 \times 24465925)}{(384.16 + 24465925 - 1)}\)
   \[
   \text{True Sample} = 9398829748 / 24466308.16
   \]
   \[
   \text{True Sample} = 384.153
   \]

Based on the above calculation of determining the sample side, sample size is rounded off to 400 and is considered for this study.
4.2.5 Sampling Procedure

In this research, non-probability sampling procedure is applied. Zikmund (2010) defined non-probability sampling as a sampling technique in which units of the sample are selected on the basis of personal judgment or purpose. In this study, accidental or convenience sampling method is used. The samples were collected from central business areas of Bangkok i.e. Ploenchit, Chidlom, Siam, Ratchadamri, Nana, Asoke, Phrom, Pong, Thong Lor, Ekkamai, On Nut and Sala Daeng areas from June till August. As per the topic of the research, the respondents who were the clients of Bank of Ayuthya, Bangkok Bank, Kasikorn Bank, SCB bank, KrungThai Bank, TMB bank and Standard Chartered Bank were taken into account because according to the Bank of Thailand (2016), these banks represent approximately 76% of total bank branches in Bangkok and these are major market players in commercial banking in Thailand. The researcher targeted the lunch hour i.e. 12PM-2PM and after 7 PM in order to avoid the rush hour. The respondents were directly approached by the researcher and requested to fill the questionnaire. This research is based on customer satisfaction and loyalty of net banking customers of Bangkok. So the researcher selects customers who have experienced web banking and/or mobile banking as respondents. Data were collected from the respondents who qualified the screening questions.

4.2.6 Research Instrument/ Questionnaire

In this research project, the researchers design the questionnaire which is divided into 3 parts. Part 1 is screening question. Part 2 is questionnaire regarding the dependent, moderating and independent factors. Part 3 is about demographic variables.

**Part 1: Screening Question**

There is one screening question. Dichotomous questions will be used for the screening questions. According to Zikmund (2010), screening questions maybe dichotomous (yes or no answers), multiple choice (alternative answers listed) or open-ended. The respondents will be screened on basis of whether they have used electronic banking or not.
Part 2: Independent Variable, moderating and Dependent variable

There are six independent variables: core service quality, special treatment benefits, social benefit, confidence benefits, physical layout and accessibility. The moderating variables is customer satisfaction. The dependent variable is customer loyalty.

The questions are adapted from questionnaire from appendixes of past research papers. The questionnaires related to social benefits, confidence benefits, special treatment benefits and customer loyalty were adapted from Al-hawari (2014). Similarly, questionnaires related to physical layout and accessibility were adapted from Gupta and Dev (2012). The questionnaires related to core service quality and adapted from Kaur et al. (2011). Finally, questions regarding customer satisfaction were adapted from Clemes et al. (2010).

The researchers design seven-point Likert scale for all questions. According to Zikmund (1984), Likert scale can be described as a measure of attitudes designed to allow respondents to indicate how strongly they agree or disagree with carefully constructed statements that range from very positive to very negative toward an attitudinal object. According to Nunnally (1978), seven point Likert scale is better than 5 or 11 point scale because seven points provides good balance between having ample points of discrimination and without too many options for customer to respond to. A score of 1 indicated that respondent strongly disagreed with the given questions while score of 7 would mean respondent strongly agreed to the provided question.

Part 3: Demographic Factors

Zikmund (1984) stated that, demographic factors consists studies of population by being based on various factors like gender, age, marital status, employment, education level and others. In the questionnaire, the researcher has used various demographic questions to analyze its population. Multiple choice form of assessment is used in which respondents are asked to select the best possible answer (or answers) out of the choices from a list.
Table 4.2: Research Instrument Design

<table>
<thead>
<tr>
<th>Part</th>
<th>Variables</th>
<th>Ques. No</th>
<th>No Of Items</th>
<th>Measurement Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screening Questions</td>
<td>If they use net banking or not</td>
<td>A</td>
<td>1</td>
<td>Nominal</td>
</tr>
<tr>
<td>2. Independent Variables</td>
<td>Core service Quality</td>
<td>1-9</td>
<td>9</td>
<td>Interval</td>
</tr>
<tr>
<td></td>
<td>Special Treatment Benefits</td>
<td>10-12</td>
<td>3</td>
<td>Interval</td>
</tr>
<tr>
<td></td>
<td>Social Benefits</td>
<td>13-15</td>
<td>3</td>
<td>Interval</td>
</tr>
<tr>
<td></td>
<td>Confidence Benefits</td>
<td>16-19</td>
<td>4</td>
<td>Interval</td>
</tr>
<tr>
<td></td>
<td>Physical Layout</td>
<td>20-24</td>
<td>5</td>
<td>Interval</td>
</tr>
<tr>
<td></td>
<td>Accessibility</td>
<td>25-27</td>
<td>3</td>
<td>Interval</td>
</tr>
<tr>
<td>3. Moderating Variables</td>
<td>Customer satisfaction</td>
<td>28-30</td>
<td>3</td>
<td>Interval</td>
</tr>
<tr>
<td>4. Dependent Variable</td>
<td>Customer Loyalty</td>
<td>31-33</td>
<td>3</td>
<td>Interval</td>
</tr>
<tr>
<td>5. Demographic Questions</td>
<td>Gender</td>
<td>34</td>
<td>1</td>
<td>Nominal</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>35</td>
<td>1</td>
<td>Nominal</td>
</tr>
<tr>
<td></td>
<td>Occupation</td>
<td>36</td>
<td>1</td>
<td>Ordinal</td>
</tr>
<tr>
<td></td>
<td>Monthly Income</td>
<td>37</td>
<td>1</td>
<td>Ordinal</td>
</tr>
<tr>
<td></td>
<td>Primary Bank</td>
<td>38</td>
<td>1</td>
<td>Ordinal</td>
</tr>
</tbody>
</table>
Table 4.3: Research Instrument Design- Question Adaptation

<table>
<thead>
<tr>
<th>Part</th>
<th>Question no</th>
<th>Adapted From</th>
<th>No of Items</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Service Quality</td>
<td>1-9</td>
<td>Kaur <em>et al.</em> (2011)</td>
<td>9</td>
<td>Interval</td>
</tr>
<tr>
<td>Special treatment</td>
<td>10-12</td>
<td>Al-hawari (2014)</td>
<td>3</td>
<td>Interval</td>
</tr>
<tr>
<td>Benefit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Benefit</td>
<td>13-15</td>
<td>Al-hawari (2014)</td>
<td>3</td>
<td>Interval</td>
</tr>
<tr>
<td>Confidence Benefit</td>
<td>16-19</td>
<td>Al-hawari (2014)</td>
<td>4</td>
<td>Interval</td>
</tr>
<tr>
<td>Physical Layout</td>
<td>20-24</td>
<td>Gupta and Dev</td>
<td>5</td>
<td>Interval</td>
</tr>
<tr>
<td>Accessibility</td>
<td>25-27</td>
<td>Gupta and Dev</td>
<td>3</td>
<td>Interval</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>28-30</td>
<td><em>Clemes et al.</em></td>
<td>3</td>
<td>Interval</td>
</tr>
<tr>
<td>Customer Loyalty</td>
<td>31-33</td>
<td>Al-hawari (2014)</td>
<td>3</td>
<td>Interval</td>
</tr>
</tbody>
</table>

4.3 Pretest

A pretest is used to analyze and ascertain the solidity and validity of research instrument. According to Zikmund (1984), pretest is a process that ensures accounts for all aspects of the interview. Wiesburg (2005) also defined that pretest determines the effectiveness of the survey questionnaire; it is necessary to pretest it before actually using it and pretesting can help you determine the strengths and weaknesses of your survey concerning question format, wording, and order.

Cronbach's alpha is used in this study and it is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. According to Nunnally (1978), in exploratory research, items with Cronbach Alpha value higher than 0.6 are considered to exhibit internal consistency. Since questionnaire are in two languages, the pre-test was done by researcher using data from 30 sets of questionnaire filled the respondents of the bank. The data was collected using convenience sampling from customers of banks in Hua mark and Bangpaki area.
The overall questions are proposed by statistical program to find out the value of the reliability by using the Cronbach Alpha scores, and the summary of reliability of the questionnaires was indicated in following Table:

Table 4.4 : Reliability test of variables using Cronbach Alpha

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Service Quality</td>
<td>0.893</td>
</tr>
<tr>
<td>Special Treatment Benefits</td>
<td>0.704</td>
</tr>
<tr>
<td>Social Benefits</td>
<td>0.650</td>
</tr>
<tr>
<td>Confidence Benefits</td>
<td>0.717</td>
</tr>
<tr>
<td>Physical Layout</td>
<td>0.836</td>
</tr>
<tr>
<td>Accessibility</td>
<td>0.704</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>0.863</td>
</tr>
<tr>
<td>Customer Loyalty</td>
<td>0.715</td>
</tr>
</tbody>
</table>

Based on the Cronbach Alpha depicted in Table 4.4, the researcher concluded that Cronbach Alpha of all the eight variable is equal to or more than 0.6 Therefore, all the questions are consistent, reliable and can consider to apply as the research instrument for the study.

4.4 Collection of the Data

In this research, non-probability sampling procedure is applied. Zikmund (2010) defined non-probability sampling as a sampling technique in which units of the sample are selected on the basis of personal judgment or purpose. In this study, accidental or convenience sampling method is used. The samples were collected from central business areas of Bangkok i.e. Ploenchit, Chidlom, Siam, Ratchadamri, Nana, Asoke, Phrom, Pong, Thong Lor, Ekkamai, On Nut and Sala Daeng areas from June till August. The researcher targeted the lunch hour i.e. 12-1 PM and after 7 PM in order to avoid the rush hour. As per the topic of the research, the respondents who were the clients of Bank of Ayuthya, Bangkok Bank, Kasikorn Bank, SCB bank, KrungThai Bank, TMB bank and Standard Chartered Bank were taken into account because according to the Bank of Thailand (2016), these banks represent approximately 76% of total bank branches in Bangkok and these are major market players in commercial
banking in Thailand This research is based on customer satisfaction and loyalty of net banking customers of Bangkok. So the researcher selects customers who have experienced web banking and/or mobile banking as respondents. Data were collected from the respondents who qualified the screening questions. Besides the Primary data, secondary data were be used in the research. For this study, the researcher collected data from many sources such as Journals sourced from Emerald; definitions and quotations from textbooks, Bank of Thailand websites etc.

4.5 Statistical treatment of Data

The researcher will use GNU PSPP version 0.10.1-g1082b8, a window based open source statistical analyzing tool capable of handling large amounts of data and can perform all of the analyses covered in the text and much more. PSPP is commonly used in the social sciences and in the business world. All the necessary data collected were summarized and analyzed in a readable way and easily interpretable way using PSPP. Therefore, researchers collected data and used PSPP program to analyze the data.

4.5.1 Descriptive Analysis

Zikmund (2010) defined descriptive statistic as a set of brief descriptive coefficients that summarizes a given data set, which can either be a representation of the entire population or a sample. Wiesburg (2005) added that the measures used to describe the data set are measures of central tendency and measures of variability or dispersion. Moreover, Friedman (1957) refers descriptive analysis as utilizes numerical and graphical methods to seek for designs in a data set. In the section of descriptive statistics, the most popular and easy form to summarize the raw data, which is to calculate mean, standard deviation, percentage and frequency distribution. The formulas which included in this study are shown as below:

Mean

Perhaps the most important numerical measure of location is the mean or average value. The mean provides a measure of central location for a data set Bhattacherjee (2012).

$$\bar{x} = \frac{x_1 + x_2 + \cdots + x_n}{n}$$
Where,

\[ \bar{x} = \text{Mean} \]

\( X = \text{Mean values} \)

\( N = \text{Number of Observation} \)

**Percentage**

It is the total frequency that will be standardized to the value of 100

Bhattacherjee (2012).

\[ \text{Percentage} (\%) = \left( \frac{f}{n} \right) \times 100 \]

**Standard Deviation (SD)**

SD is the positive square root of the variance and the standard deviation is measured in the same units as the original data. For this reason, the standard deviation is easier when compared to the mean and other statistics that are measured in the same units as the original data Bhattacherjee (2012).

\[ s = \sqrt{\frac{1}{N-1} \sum_{i=1}^{N} (x_i - \bar{x})^2} \]

Where,

\( S = \text{Standard Deviation} \)

\( X_i = \text{Value of each observation in Sample} \)

\[ \bar{x} = \text{Mean of the Observation} \]

\( N = \text{Number of Observation} \)

**4.5.2 Hypothesis Testing**

Zikmund (2010) defines hypothesis testing is a statistical test which is a method of making statistical decisions by using experimental data. Wiesburg (2005) defines hypothesis is an unproven proposition or supposition that tentatively explains certain
facts or phenomena and a proposition is empirically testable. Hypothesis testing is very important for the application of statistics to real life problems.

4.5.2.1 Inferential Statistics

Zikmund (2010) describes Inferential statistics as the statistics that is used to make inferences or judgments about a population on the basis of a sample. In this research, the researchers use PSPP to analysis the statistical data and analyze them.

The researcher will use multiple regression, Pearson Correlation and independent sample T test for the hypothesis testing. Multiple regression analysis and Pearson correlation also used to analyze the relationship between independent and dependent variables while one way ANOVA is used to analyze the relationship of different sub categories of independent variable with the dependent variable.

Multiple Linear Regression

According to Pearson (1908), multiple regression is analysis of relationship between several independent or predictor variables and a dependent or criterion variable.

Formula applied to predict the level or magnitude of a (metric) dependent variable based on the levels of multiple independent variables is as follows:

\[ \hat{y} = \hat{\alpha} + b_1x_1 + b_2x_2 + b_3x_3 \ldots \ldots + b_nx_n \]

\[ y = \text{dependent variable} \]
\[ \hat{\alpha} = \text{Constant term, or Y-axis intercept for regression line} \]
\[ x_1 = \text{First independent variable} \]
\[ x_2 = \text{Second independent variable} \]
\[ x_3 = \text{Third independent variable} \]
\[ x_n = \text{nth independent variable} \]

There are three tables in the results of testing by using multiple regression analysis: the first table is the coefficient of multiple determination \( (R^2) \), the second table is F-test or F statistic (F or ANOVA) and the third table is regression coefficient.
Coefficient of Multiple Determination

The coefficient of multiple regression is equal to the regression sum of square (SSR) divided by the total sum of Square (SST). The formula is:

$$R^2 = \frac{SSR}{SST}$$

Where,

SSR= Regression sum of square

SST= Total Sum of Square

Pearson Correlation Coefficient

Correlation is used to study the relationship between two variables in a linear format. Correlation coefficient (r) is technique used to investigate the strength of the correlation between two variables. Zikmund (2003) described Pearson correlation coefficient as the best way to illustrate the degree of correlation between two variables. The calculation of the correlation coefficient of X and Y variables can be done follows:

$$r = \frac{\sum XY - n\bar{X}\bar{Y}}{\sqrt{\sum X^2 - n\bar{X}^2} \sqrt{\sum Y^2 - n\bar{Y}^2}}$$

The value of correlation (r) is between -1.00 to 1.00. The highest value (1.00) represents perfect positive correlation while lowest value (-1) represents perfect negative correlation. The R value and the corresponding strength of association can be shown in below table:
Table 4.5: Correlation Table and Interpretation

<table>
<thead>
<tr>
<th>Correlation (r)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Perfect positive correlation</td>
</tr>
<tr>
<td>0.99 to 0.9</td>
<td>Very high positive correlation</td>
</tr>
<tr>
<td>0.89 to 0.7</td>
<td>High positive correlation</td>
</tr>
<tr>
<td>0.69 to 0.4</td>
<td>Medium positive correlation</td>
</tr>
<tr>
<td>0.39 to 0</td>
<td>Low positive correlation</td>
</tr>
<tr>
<td>0 to -0.39</td>
<td>Low negative correlation</td>
</tr>
<tr>
<td>-0.4 to -0.69</td>
<td>Medium negative correlation</td>
</tr>
<tr>
<td>-0.7 to -0.89</td>
<td>High negative correlation</td>
</tr>
<tr>
<td>-0.9 to -0.99</td>
<td>Very high negative correlation</td>
</tr>
<tr>
<td>-1</td>
<td>Perfect negative correlation</td>
</tr>
<tr>
<td>0</td>
<td>No correlation</td>
</tr>
</tbody>
</table>


Independent sample T test

Independent sample T test compares the mean of two independent groups in order to determine there is statistical evidence that the associated population means are significantly different.

\[
t = \frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{S_{\bar{X}_1 - \bar{X}_2}}
\]

where,

\(\mu_1\) and \(\mu_2\) are population while \(x_1\) and \(X_2\) are samples.

All these hypothesis will be tested with the level of significance (\(\alpha\)) set at 5%. Thus, 5% of error is tolerated for the study. Thus, if the p value of the hypothesis is more than 0.05, then the null hypothesis is failed to reject but if the p values is less than 0.05 then the null hypothesis is rejected.
4.6 Summary of the Hypothesis and Statistical Analysis

Various statistical tools were employed to test the hypothesis in this research study. Descriptive statistics were used to analyze the demographic factors, multiple regression analysis was used to analyze the significant independent variables influencing dependent variables, correlation coefficient was used to test the relationship between two variables. Similarly, Independent Sample T test was used to find out the significant difference in the different groups. The statistical treatment was done using PSPP application and the confidence level was set as 95%. The Summary of the respective research hypothesis and the statistical treatment to analyze these hypotheses are given below:

**Table 4.6: Summary of the Hypothesis and statistical Analysis**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Research Hypothesis</th>
<th>Statistical Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H1a: Core service quality of bank explains unique variance for customer satisfaction towards the bank.</td>
<td>Multiple Regression Analysis</td>
</tr>
<tr>
<td>2</td>
<td>H1b: Social benefits of bank explains unique variance for customer satisfaction towards the bank.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>H1c: Confidence benefits of bank explains unique variance for customer satisfaction towards the bank.</td>
<td>Pearson Correlation Test.</td>
</tr>
<tr>
<td>4</td>
<td>H1d: Physical Layout explains unique variance for customer satisfaction towards the bank.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>H2: There is relation between consumer satisfaction and customer loyalty.</td>
<td>Pearson Correlation Test.</td>
</tr>
<tr>
<td>8</td>
<td>H3: There is statistical relation between special treatment benefits and customer satisfaction</td>
<td>Pearson Correlation Test.</td>
</tr>
<tr>
<td>9</td>
<td>H4: There is statistical relation between accessibility and customer satisfaction.</td>
<td>Pearson Correlation Test.</td>
</tr>
</tbody>
</table>
CHAPTER V  
PRESENTATION OF DATA ANALYSIS AND RESULTS

This chapter presents the statistical results of the data collected from the respondents of the banks. The data has been processed through three parts. The first part is the descriptive analysis of the demographic factors. The second part is the descriptive analysis of the main variables describing the mean and the standard deviation of the each component. And the third part is the inferential analysis of the hypothesis

5.1 Descriptive Analysis of Demographic Factors

Zikmund (2010) defined descriptive statistic as a set of brief descriptive coefficients that summarizes a given data set, which can either be a representation of the entire population or a sample. In this study, descriptive statistics is utilized to represent the demographic characteristics about the commercial bank consumers of Bangkok area by using the frequency and the percentage data.

The demographic information about the respondents include customer banking preference, gender, age, occupation and income. A total of 400 respondents were analyze and the result has be presented below:

**Figure 5.1.1: Descriptive analysis of Gender**

![Descriptive analysis of Gender](image)

Figure 5.1.1 indicates that the majority of the respondents were female with 52% (209 respondents) while male respondents were 48% (191 respondents).
Figure 5.1.2: Descriptive analysis of Age

Figure 5.1.2 indicates that the majority of the respondents are between age groups 31-40 years old with 38.5% (154 respondents). There are 34.75% of respondents who are between age group of 21-30 years (139) and 11.5% of respondents between age group of 41-50 years (46 years). There are 10.25% of respondents of age group 50 years and above (41 respondents) while just 5% of respondents between age group 20 years and below (20 respondent).

Figure 5.1.3: Descriptive analysis of Income

Figure 5.1.3 depicts, the largest group of respondents who earn between 30,000-40,000 Baht a month are 36% (143 respondents). Similarly, the respondents who earn
between 20,000-30000 Baht a month are 22% (87 respondents). The respondents with more than 50,000 Baht a month income a month are 17% (69 respondents). The respondents with 40,000-50000 Baht a month are 14% (56 respondents). Finally, the respondents with less than 20,000 Baht a month income are 11% (45 respondents).

**Figure 5.1.4:** Descriptive analysis of Occupation

As indicated in the figure 5.1.4, the majority of the respondent group are the private employee with 57% (226 respondents). The second largest group of respondent are students with 18% (72 respondents). There are 7% of respondents doing government job. (26 respondents). 14% of respondents are self-employed (56 respondents. Finally, 5% of respondents are unemployed. (20 respondents).
As indicated in the figure 5.1.5, the majority of the respondent are the customers of Bangkok Bank with 23% (93 respondents). The second largest group are the customers of Siam Commercial bank with 22% (89 respondents). There are 20% of respondents who are Kasikorn Bank’s customers (82 respondents). 12% of respondents are customers of Krung Thai and Bank of Ayuthya respectively (48 Respondents). Standard Chartered bank has 6% of customers resulting 22 respondents Finally, 5% of respondents are from the TMB bank with 18 respondents.
5.2 Descriptive Analysis of Variables

In this part, the descriptive statistic method is used to analyze the variables. The outcome of the independent and dependent variable depicted in the conceptual framework: core service quality, special treatment benefits, social benefits, confidence benefits, tangibles, accessibility, customer satisfaction and customer loyalty will be presented in mean and the standard deviation.

**Table 5.2.1: Descriptive analysis of core service quality**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t have to wait longer time for transaction.</td>
<td>400</td>
<td>1.00</td>
<td>7.0</td>
<td>5.44</td>
<td>1.288</td>
</tr>
<tr>
<td>The bank doesn’t take long time to solve your problem.</td>
<td>400</td>
<td>1.00</td>
<td>7.0</td>
<td>5.58</td>
<td>1.223</td>
</tr>
<tr>
<td>The banks remittance or funds transfer system is efficient.</td>
<td>400</td>
<td>1.00</td>
<td>7.0</td>
<td>5.94</td>
<td>1.160</td>
</tr>
<tr>
<td>The banks record maintenance procedure is error free.</td>
<td>400</td>
<td>1.00</td>
<td>7.0</td>
<td>5.76</td>
<td>1.241</td>
</tr>
<tr>
<td>The bank’s back staff have required knowledge.</td>
<td>400</td>
<td>2.00</td>
<td>7.0</td>
<td>5.83</td>
<td>1.037</td>
</tr>
<tr>
<td>The charges collected by the bank on various services as credit cards, fund transfer payment of utilities bill etc. are nominal.</td>
<td>400</td>
<td>2.00</td>
<td>7.0</td>
<td>5.59</td>
<td>1.155</td>
</tr>
</tbody>
</table>
According to the table 5.2.1, the highest mean of the core service quality is 5.94, in the respect to the statement “The banks remittance or fund transfer system is efficient” with the standard deviation of 1.16. The lowest mean of the core service quality is 5.44 in the respect to the statement “I don’t have to wait longer time for the transaction” with the standard deviation of 1.28. The mean of all the questions of the core service quality fall under 5 (agree) and 6 (moderately agree) which means that the respondents fairly agree with the questions about the core service quality.
Table 5.2.2: Descriptive analysis of special treatment benefits

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel my personal needs have been met when using the</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>4.2525</td>
<td>1.68697</td>
</tr>
<tr>
<td>service of the bank.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The banks provide special gifts or services on basis of</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.0950</td>
<td>1.64704</td>
</tr>
<tr>
<td>certain loyalty points collected from the bank transactions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The electronic portals recommend me service and information</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.1675</td>
<td>1.64810</td>
</tr>
<tr>
<td>according to my preference.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the table 5.2.2, the highest mean of the special treatment benefits is 5.1675, in the respect to the statement “The electronic portals recommend me service and information according to my preference.” with the standard deviation of 1.64. The lowest mean of the special treatment benefits is 4.2525 in the respect to the statement “I feel my personal needs have been met when using the service of the bank.” with the standard deviation of 1.68. The mean of all the questions of the special treatment benefits fall under 4 (neutral) and 5 (agree) which means that the respondents are either neutral or agree with the questions about the special treatment benefits.
Table 5.2.3: Descriptive analysis of the social benefits

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The back staff of bank treat me nicely and in friendly manner.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>4.7400</td>
<td>1.86039</td>
</tr>
<tr>
<td>Bank show sincere interest in solving customer problems</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.5375</td>
<td>1.22775</td>
</tr>
<tr>
<td>It is easy to communicate and provide feedback to the bank.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.6825</td>
<td>1.19803</td>
</tr>
</tbody>
</table>

According to the table 5.2.3, the highest mean of the social benefits is 5.682, in the respect to the statement “It is easy to communicate and provide feedback to the bank.” with the standard deviation of 1.19. The lowest mean of the social benefits is 4.74 in the respect to the statement “The back of the bank treat me nicely and in friendly manner.” with the standard deviation of 1.86. The mean of all the questions of the social benefits fall under 4 (neutral) and 5 (agree) which means that the respondents are either neutral or agree with the questions about the social benefits.
Table 5.2.4: Descriptive analysis of confidence benefits

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I trust my bank.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.970</td>
<td>1.11679</td>
</tr>
<tr>
<td>I have confidence that the employees and the electronic portal of banks perform the bank operation correctly and securely.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.445</td>
<td>1.28690</td>
</tr>
<tr>
<td>I have no anxiety while dealing with the bank.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.580</td>
<td>1.22571</td>
</tr>
<tr>
<td>I have confidence at the functioning in the operation of electronic transactions of the bank.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.942</td>
<td>1.15652</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the table 5.2.4, the highest mean of the confidence benefits is 5.97, in the respect to the statement “I trust my bank” with the standard deviation of 1.116. The lowest mean of the confidence benefits is 5.44 in the respect to the statement “I have confidence that the employees and the electronic portal of banks perform the bank operations correctly and securely” with the standard deviation of 1.286. The mean of all the questions of the confidence benefits fall under 5 (agree) and 6 (moderately agree) which means that the respondents moderately agree with the questions about the confidence benefits.
Table 5.2.5: Descriptive analysis of physical layout

### Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The bank has modern equipment’s (ATMs, CDMs, computers, cash counting machines etc.)</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>4.4450</td>
<td>1.94845</td>
</tr>
<tr>
<td>The interface of the ATM, CDM, web and mobile applications are user friendly and easy to learn.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>4.6575</td>
<td>1.86921</td>
</tr>
<tr>
<td>The interface of the ATM, CDM, web and mobile applications are easy functioning and less time consuming.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>4.5950</td>
<td>1.78857</td>
</tr>
<tr>
<td>The website and mobile applications are visually appealing.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.2475</td>
<td>1.67279</td>
</tr>
<tr>
<td>The user interface of the electronic portals are convenient and easy to use.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.3725</td>
<td>1.61408</td>
</tr>
</tbody>
</table>

According to the table 5.2.5, the highest mean of the physical environment is 5.37, in the respect to the statement “The user interface of the electronic portals are convenient and easy to use.” with the standard deviation of 1.614. The lowest mean of the physical environment is 4.44 in the respect to the statement “The bank has modern equipment’s (ATMs, CDMs, computers, cash counting machine etc.)” with the standard deviation of 1.948. The mean of all the questions of the physical environment fall under 4
(neutral) and 5 (agree) which means that the respondents fairly agree with the questions about the physical environment.

Table 5.2.6: Descriptive analysis of accessibility

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The branches of banks and ATMs, CDMs are accessible and in convenient locations.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>4.252</td>
<td>1.6869</td>
</tr>
<tr>
<td>• The electronic cards (ATMs, Credit cards) can be accessed from ATMs or POS machines without any errors.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.095</td>
<td>1.6470</td>
</tr>
<tr>
<td>• The application and website can be accessed 24 hours without slowing of the system.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.167</td>
<td>1.6481</td>
</tr>
</tbody>
</table>

Valid N (listwise) 400

According to the table 5.2.6, the highest mean of the accessibility is 5.16, in the respect to the statement “The application and website can be accessed 24 hours without slowing of the system” with the standard deviation of 1.64. The lowest mean of the accessibility is 4.25 in the respect to the statement “The branches of banks and the ATMs, CDMs are accessible and in convenient locations” with the standard deviation of 1.686. The mean of all the questions of the physical environment fall under 4 (neutral) and 5 (agree) which means that the respondents fairly agree with the questions about the accessibility.
Table 5.2.7: Descriptive analysis of customer satisfaction

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am satisfied with the banking experience.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.5950</td>
<td>1.94845</td>
</tr>
<tr>
<td>I am satisfied with the net banking experience.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.6575</td>
<td>1.86921</td>
</tr>
<tr>
<td>I will continue using this bank in the future.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.4459</td>
<td>1.78857</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the table 5.2.7, the highest mean of the customer satisfaction is 5.65, in the respect to the statement “I am satisfied with the net banking experience” with the standard deviation of 1.86. The lowest mean of the customer satisfaction is 4.44 in the respect to the statement “I will continue using this bank in the future” with the standard deviation of 1.788. The mean of all the questions of the customer satisfaction fall under 5 (agree) and 6 (moderately agree) which means that the respondents moderately agree with the questions about the customer satisfaction.
Table 5.2.8: Descriptive analysis of customer loyalty

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>This bank is my first choice.</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.247</td>
<td>1.6727</td>
</tr>
<tr>
<td>I will recommend this bank to</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>5.372</td>
<td>1.6140</td>
</tr>
<tr>
<td>others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am not willing to change this</td>
<td>400</td>
<td>1.00</td>
<td>7.00</td>
<td>4.595</td>
<td>1.7885</td>
</tr>
<tr>
<td>bank.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the table 5.2.8, the highest mean of the customer loyalty is 5.37, in the respect to the statement “I will recommend this bank to others” with the standard deviation of 1.61. The lowest mean of the customer loyalty is 4.59 in the respect to the statement “I am not willing to change this bank” with the standard deviation of 1.788. The mean of all the questions of the customer loyalty fall under 4 (neutral) and 5 (agree) which means that the respondents fairly agree with the questions about the customer loyalty.
5.3 Inferential Analysis

Zikmund (2010) describes Inferential statistics as the statistics that is used to make inferences or judgments about a population on the basis of a sample. Based on the statistical result of the inferential analysis from PSPP application, the significant factors affecting the customer satisfaction in retail banks could be identified. In this study, multiple regression is employed to test Hypothesis 1, Pearson correlation coefficient to test hypothesis 2,3 and 4 and Independent Sample T test to test hypothesis 5 and 6. The results of the inferential analysis are described below:

Hypothesis 1

H1₀: Core service quality, social benefits, confidence benefits and physical Layout has no significant influence on Customer satisfaction of the bank.

H1ₐ: Core service quality, social benefits, confidence benefits and physical Layout has significant influence on Customer satisfaction of the bank.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.850^a</td>
<td>.723</td>
<td>.720</td>
<td>.80697</td>
</tr>
</tbody>
</table>

---
a. Predictors: (Constant), Confidence Benefits, Core Service Quality, Physical Layout, Social Benefit,

Based on the table 5.3.1, the coefficient of determination or R is equal to .850, which means that there is a strong positive relationship among core service quality, social benefits, confidence benefits, physical layout and customer satisfaction of the bank. Also, the strength of association ($r^2$), which is equal to .723. This means that 72.3% of the variation in the independent and dependent model can be explained by the linear model.
ANOVA\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>670.745</td>
<td>4</td>
<td>167.686</td>
<td>257.500</td>
<td>.000(^b)</td>
</tr>
<tr>
<td>1 Residual</td>
<td>257.227</td>
<td>395</td>
<td>.651</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>927.972</td>
<td>399</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Consumer Satisfaction  
b. Predictors: (Constant), Confidence Benefits, Core Service Quality , Tangibles, Social Benefit,  

ANOVA of regression table concluded that the level of significance is 0.00 which is less than 0.05 (0.00<0.05). Therefore, its concluded that null hypothesis (H\(_0\)) is rejected. That means at least one of independent variable i.e. Core service quality, social benefits, confidence benefit and physical layout has significant influence Customer satisfaction of the bank.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-2.309</td>
<td>.385</td>
<td>-6.002</td>
<td>.000</td>
</tr>
<tr>
<td>Core Service Quality</td>
<td>.296</td>
<td>.069</td>
<td>.133</td>
<td>4.264</td>
</tr>
<tr>
<td>Social Benefits</td>
<td>.120</td>
<td>.053</td>
<td>.077</td>
<td>2.257</td>
</tr>
<tr>
<td>Confidence Benefits</td>
<td>.104</td>
<td>.039</td>
<td>.073</td>
<td>2.644</td>
</tr>
<tr>
<td>Physical Layout</td>
<td>.835</td>
<td>.034</td>
<td>.746</td>
<td>24.58</td>
</tr>
</tbody>
</table>

As indicated in above table of regression coefficients, the level of significance of core service quality, social benefits , consumer benefits and tangibles are less than 0.05.
This means that core service quality, social benefits, consumer benefits and tangibles have statistical significant influence ($< 0.05$) on consumer satisfaction of bank.

Based on the result, the derived regression equation is as follows:

\[
CS = -2.309 + 0.296 \text{CSQ} + 0.120 \text{SB} + 0.104 \text{CB} + 0.835 \text{PL}
\]

Where,

CS= Consumer satisfaction

CSQ= Core Service Quality

SB= Social Benefits

CB= Confidence Benefits

PL= Physical Layout
**Hypothesis 2**

**H2₀**: There is no significant relation between customer satisfaction and customer loyalty to the bank.

**H2₁**: There is significant relation between customer satisfaction and customer loyalty to the bank.

**Table 5.3.2**: Analysis of relationship between customer satisfaction and customer loyalty using Pearson Correlation Coefficient

<table>
<thead>
<tr>
<th></th>
<th>Customer Satisfaction</th>
<th>Customer Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>1</td>
<td>.626**</td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>400</td>
<td>400</td>
</tr>
</tbody>
</table>

**Pearson Correlation**

<table>
<thead>
<tr>
<th></th>
<th>Customer Satisfaction</th>
<th>Customer Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>.626**</td>
<td>1</td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>400</td>
<td>400</td>
</tr>
</tbody>
</table>

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

Table 5.3.2 shows the result from the Pearson correlation coefficient about the nature of relationship between customer satisfaction and customer loyalty. The significant level is 0.00 which is less than 0.01 (0.00<0.01), which means the null hypothesis (H₀) is rejected. Thus, there is relation between customer satisfaction and customer loyalty to the bank. Besides, the Pearson correlation score is 0.626, which means that there is a medium positive correlation between customer satisfaction and customer loyalty.
Hypothesis 3

H₃₀: There is no significant relation between special treatment benefits and customer satisfaction to the bank.

H₃₁: There is significant relation between special treatment benefits and customer satisfaction.

Table 5.3.3: Analysis of relationship between special treatment benefits and customer satisfaction using Pearson Correlation Coefficient.

<table>
<thead>
<tr>
<th></th>
<th>Special Treatment benefits</th>
<th>Consumer Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Treatment benefits Pearson Correlation</td>
<td>1</td>
<td>.497**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>400</td>
</tr>
<tr>
<td>Consumer Satisfaction Pearson Correlation</td>
<td>.497**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>400</td>
</tr>
</tbody>
</table>

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

Table 5.3.3 shows the result from the Pearson correlation coefficient about the nature of relationship between special treatment benefits and customer satisfaction. The significant level is 0.00 which is less than 0.01 (0.00<0.01) , which means the null hypothesis (H₀) is rejected. Thus, there is significant relation between special treatment benefits and customer satisfaction. Besides, the Pearson correlation score is 0.497 , which means that there is a medium positive correlation between customer satisfaction and special treatment benefits.
Hypothesis 4

**H4₀**: There is no statistical relation between accessibility and customer satisfaction of banks.

**H4₁**: There is statistical relation between accessibility and customer satisfaction of banks.

Table 5.3.4: Analysis of relationship between accessibility and customer satisfaction using Pearson Correlation Coefficient.

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Consumer Satisfaction</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Satisfaction Pearson Correlation</td>
<td>1</td>
<td>.400**</td>
</tr>
<tr>
<td>Sig. (2-tailed) N</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Accessibility Pearson Correlation</td>
<td>.400**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed) N</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>400</td>
<td>400</td>
</tr>
</tbody>
</table>

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

Table 5.3.4 shows the result from the Pearson correlation coefficient about the nature of relationship between accessibility and customer satisfaction. The significant level is 0.00 which is less than 0.01 (0.00<0.01) , which means the null hypothesis (H₀) is rejected. Thus, there is significant relation between accessibility and customer satisfaction .Besides, the Pearson correlation score is 0.40 , which means that there is a medium positive correlation between accessibility and consumer satisfaction.
## 5.4 Summary of Hypothesis Testing

**Table 5.4: Summary of Hypothesis Testing**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statistical Test</th>
<th>Sig. Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Core service quality, social benefits, confidence benefits and tangible characteristics has influence on Customer satisfaction of the bank.</td>
<td>Multiple Regression Analysis</td>
<td></td>
<td>Reject H₀</td>
</tr>
<tr>
<td>H2: There is relation between customer satisfaction and customer loyalty to the bank.</td>
<td>Pearson Correlation</td>
<td>0.00</td>
<td>Reject H₀</td>
</tr>
<tr>
<td>H3: There is significant statistical relation between special treatment benefit and customer satisfaction of the bank</td>
<td>Pearson Correlation</td>
<td>0.00</td>
<td>Reject H₀</td>
</tr>
<tr>
<td>H4: There is significant statistical relation between accessibility and customer satisfaction of the bank</td>
<td>Pearson Correlation</td>
<td>0.00</td>
<td>Reject H₀</td>
</tr>
</tbody>
</table>
CHAPTER VI
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary of the findings, contains the discussion of the results and recommendations based on the data collected from the 400 respondents of the study. In the context of the result, the discussion and the recommendation as well the further studies provide important information of the researcher. As previously noted this was to identify key factors, with a view to pointing the way for more comprehensive future research, the findings which could then be subjected to more rigorous testing.

6.1 Summary of Findings

Table 6.1: Summary of demographic factors and general information of the respondents.

<table>
<thead>
<tr>
<th>Item</th>
<th>Findings</th>
<th>Respondent profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male (191, 48%); Female (209, 52%)</td>
<td>Female (209 respondents, 52%)</td>
</tr>
<tr>
<td>Age</td>
<td>0-20 years (20, 5%); 21-30 years (139, 34.75%); 31-40 years (154, 38.5%); 41-50 years (46, 11.5%); 50 and above years (41, 10.25 %)</td>
<td>31-40 years (154 respondents, 38.5%)</td>
</tr>
<tr>
<td>Monthly Income</td>
<td>Less than 20,000 Baht (45, 11%); 20,000-30,000 baht (87, 22%); 30,000 baht-40,000 Baht (143, 36%); 40,000-50,000 Baht (56,14%); More than 50,000 Baht (69,17%)</td>
<td>30,000 Baht-40,000 Baht (143 respondents, 36%)</td>
</tr>
<tr>
<td>Item</td>
<td>Findings</td>
<td>Respondent profile</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Occupation</td>
<td>Student (72,18%), employee of private firm (226, 57%), employee of government organization (26,7%), self-employed (57,14%), unemployed (20, 5%)</td>
<td>Employee of private organization (226 respondents, 57%)</td>
</tr>
<tr>
<td>Bank’s Customers</td>
<td>Bangkok Bank (93, 23%), Siam Commercial Bank (89,22%), Kasikorn bank (82, 20%), Krung Thai (48, 12%), Bank of Ayuthya (48, 12%), Standard Chartered Bank (22, 6%), TMB (18, 6%)</td>
<td>Bangkok Bank (93, 23%),</td>
</tr>
</tbody>
</table>

Table 6.1 summarizes the demographic profile of the 400 respondents of the customers of the retail bank. The majority of the respondents are female. The majority of the respondents are between the age group of 31-40 years old whose monthly income is between 31000-40,000 Baht. Most of the respondents work in the private organization. Most of the respondents are employees of private firm and they prefer similarly, most of the respondents earning between 31000-40000 Baht. Majority of customers are from Bangkok Bank.

### 6.1.2 Discussions of descriptive statistics of variables

In order to point out the degree of the importance of each factor influencing the customer satisfaction and loyalty of the bank customers, the mean score of each factor was calculated and compared. Anderson, Sweeney and William (2002) suggested the level of influence for the mean score of interval as follows:
### Table 6.2: Range of Mean score of statistical Level

<table>
<thead>
<tr>
<th>Level of importance</th>
<th>Range of Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very important</td>
<td>6.16-7</td>
</tr>
<tr>
<td>Fairly Important</td>
<td>5.31-6.16</td>
</tr>
<tr>
<td>Important</td>
<td>4.45-5.3</td>
</tr>
<tr>
<td>Neutral</td>
<td>3.59-4.44</td>
</tr>
<tr>
<td>Fairly unimportant</td>
<td>2.73-3.58</td>
</tr>
<tr>
<td>Unimportant</td>
<td>1.87-2.72</td>
</tr>
<tr>
<td>Very unimportant</td>
<td>1-1.86</td>
</tr>
</tbody>
</table>

Table 6.3: Overall mean of all factors

Comparing overall mean of the factors in the table 6.2 with the table 6.3, the highest mean belongs to the core service quality with 5.73 while lowest mean belongs to the social benefits. Factors including special treatment, tangibles and accessibility are considered important while core service quality, social benefits and confidence benefits are considered fairly important factors influencing customer satisfaction and customer loyalty.
6.1.3 Summary of hypothesis test

**H1a**: Core service quality and customer satisfaction

Core service quality of bank explains unique variance for customer satisfaction of the bank.

**H1b**: Social benefits and customer satisfaction

Social benefits to the customers explains unique variance customer satisfaction of the bank.

**H1c**: Confidence benefits and customer satisfaction

Confidence benefits to the customers explains unique variance for customer satisfaction of the bank.

**H1d**: Physical Layout and customer satisfaction

Physical Layout of bank explains unique variance for customer satisfaction of the bank.

**H2**: Customer Satisfaction and customer loyalty

There is medium positive correlation between consumer satisfaction and customer loyalty.

**H3**: Special treatment of customers and customer satisfaction

There is medium positive correlation between special treatment benefits and customer satisfaction.

**H4**: Accessibility and customer satisfaction

There is medium positive correlation between accessibility and customer satisfaction.
6.2 Discussions and Conclusions

Findings in this study have highlighted the benefits of understanding the factors that influence the satisfaction and loyalty of traditional and web and/or mobile banking preferring customers of the retail bank. This section discusses and elaborates the results from the hypothesis regarding the factors influencing customer satisfaction and the customer loyalty of the retail banking industry.

Based on the result of hypothesis 1, core service quality, social benefits, confidence benefits and physical layout has influence on customer satisfaction of the bank. Ruiz-Molina et al. (2009) concluded that social benefits and confidence benefits were valid influencing factors influencing customer loyalty and customer satisfaction in the study. Al-hawari (2014) also concluded that social benefits and confidence benefits were statistically influencing factors affecting customer satisfaction and loyalty. Customers expectation of the basic service quality of a bank whether branch banking, card banking or net banking should be met. Service quality in branch banking is determined by the efficiency of staff, waiting period of the customer, various schemes given by the banks, charges and interest rates. The electronic banking service quality is judged over efficient and error free service, well functioning ATMs, CDMs and POS machines, faster response to any problems and minimal charge over inter bank card transactions. In the internet banking, service quality is determined over reliability, responsiveness, availability, application service competence and computer self efficacy.

Similarly, bank being service industry, a basic standard of level of relational interaction between service provider and customer has to be achieved as customers need to be comfortable and confident with the bank before engaging into financial transactions. Customers love the sense of belonging and the ownership. Simple things as staffs providing service with smile, managers calling clients by name, customized web and mobile applications and banks actually responding over your problems quickly and efficiently brings a kind of friendship between the service provider and the clients. Bitner (1990) and Dabholkar et al. (1999) concluded that tangibles and physical surrounding leads to significant impact on customer satisfaction and intention. Physical environment or tangible aspects compliments the core service and the relational benefits to enhance the customers experience with the bank. Ambience and physical facilities
helps to change the perception and mood of the customers regarding to the quality, convenience, comfort, efficiency and brand value. Tangible things such as color theme of the bank, architecture of the bank branches, architecture of the website and the mobile application, beautifully designed debit/credit cards, well functioning and new machines etc helps to reinforce the customer satisfaction and brand value of the service provider. Thus, tangible factors influence customer satisfaction and loyalty. However, Jamal and Naser (2003) concluded that physical surrounding and tangible factors are not influencing factors of customer satisfaction. The result of these studies are on contrast because the research study by Jamal and Naser (2003) were based on Pakistani women whose main concern were core service quality including interest rates than other aspects while the research. Anderson and Sullivan (1993) as well as Cronin and Taylor (1992) concluded that core service quality is a causal antecedent of customer satisfaction. Jamal and Naser (2003) also confirmed in their study that core service quality as significant factor affecting customer satisfaction in retail banking industry. The result depicts that core service quality, tangibles and the relational benefits i.e social benefits and confidence benefits are causal antecedent for customer satisfaction and customer loyalty.

Based on hypothesis 2, customer satisfaction has direct positive relationship with customer loyalty. When the customers are satisfied with the bank then they intend to seek further services with the bank in the future and thus loyalty between the customer and the service providing bank is established. This result is in the line with the result of Mohsan et al. (2011), Rahman (2013) and Koduah and Farley (2016) who all concluded that there is significant positive correlation observed between the customer satisfaction and customer loyalty relationship of retail banking industry. Having said that, customer loyalty is a vulnerable because even if client are satisfied with the financial institution, they tend to defect and switch if they get better services or value somewhere else. The concept of loyalty in bank seems more complex as the financial factor i.e interest rates tends to be more or less same among all the banks as depicted in Appendix B. In that context, traditional banking preferring customers seem loyal to the bank on basis of efficiency of core service delivered by the bank, relationship with the bank staffs, ATM, CDM machines in convenient locations switching barriers for example their salary accounts or previous engagements i.e loans from specific banks. Online banking preferring customers tend to be loyal to bank due
to factors such as service personalization, convenience and easy access, array of bank services, continuous improvement and bug free applications on various electronic platforms. In banking industry, clients tend to have multiple accounts so bank need to be extra vigilant about the customer satisfaction and customer loyalty.

Based on hypothesis 3, special treatment benefits has medium positive relationship with customer satisfaction. This result is consistent with the conclusion of Ruiz-Molina et al. (2009) and Al-hawari (2014). In service industry, special treatment to the customer is one of the key strategy for increasing satisfied customer base. In the nature of banking business, usually special treatment is more likely to be served to business clients rather than retail clients. Thus, the result has established a notion that although special treatment compliments the customer satisfaction in the financial sector but compared to the other factors such as service quality and relational benefits i.e. Social benefits and confidence benefits, special treatment benefits seems to be of less definitive importance.

Based on hypothesis 4, accessibility has direct medium positive relationship with customer satisfaction. Thus, result concludes that accessibility is one of the antecedent for customer satisfaction. The result is consistent with the conclusion of Clemes et al. (2010) as well as Levesque and McDougall (1996). However, the result of Gupta and Dev (2012) shows very high correlation between accessibility and customer satisfaction. Due to competition among the different banks, the number of branches, ATMs and CDMs are located in almost every strategic locations around Thailand. With growing trend of internet banking, server accessibility and speed is also constantly updated by the banks. Hence, accessibility is seen more as necessity rather than competitive advantage factor to the clients in Thailand than India.

Based on hypothesis 5, there is statistically significant mean difference in customer satisfaction between types of customer regarding traditional and net banking preference. This means that the perception of customer satisfaction between traditional banking preferring customers and net banking preferring customers are different. The difference in perception of these two groups can be supported by the findings in Appendix D and Appendix E. The isolated regression analysis between traditional banking preferring group and web and/or mobile banking preferring group depicts that in traditional banking core service quality, social benefits and tangibles have significant
influence on customer satisfaction while in web and or mobile banking group core service quality, confidence benefits and tangibles have significant influence on customer satisfaction. It was also found that traditional banking customers find confidence benefits not significant while web and mobile consumers find social benefit insignificant. The correlation analysis also suggested that traditional banking preferring customers’ satisfaction has medium positive relationship with special customer benefits while net and mobile banking preferring customers have medium positive correlation with accessibility. The indicators of core service quality, tangibles, confidence benefits and social benefits are completely different in net and traditional banking. According to NECTEC (2003), in traditional banking, satisfaction of the customers are dependent upon different schemes of the banks and product offerings, charges and the interest rates, efficiency and functionality of the staffs and the ADM, CDM and POS machines, tangible characteristics such as interior designs of bank branches and the condition of the bank machines, trustworthiness of the bank staffs and the machines etc. According to NECTEC (2003), besides these factors, benchmark for the net banking customers to judge customer satisfaction are dependent upon screen aesthetics, screen content, diverse service features, easy accessibility, speed, ease of use, customization and continuous update of the applications. The result are consistent with the result of Mobarek (2007), John and Rotimi (2014) and Kumbhar (2011) who all concluded that system efficiency, speed, security and convenience are significant factors that satisfy net banking customers while traditional banking customers are satisfied by core banking service and relational benefits.

6.3 Recommendations

The primary objective of the research paper was to investigate whether a significant relationship exist between the various factors with the customer satisfaction and customer loyalty of the commercial banks in Bangkok, Thailand. The research also tested whether there was significant difference in perception of customer satisfaction between traditional banking preferring clients and net banking preferring clients. The research revealed important and interesting results regarding the tested relationship which might be useful for developing new strategies in the banking sector.

The study confirmed that core service quality, social benefits, confidence benefits and physical layout are determinants of customer satisfaction. Moreover, liner
regression result can explain that these four independent variables impact customer satisfaction by 72%. Moreover, there also was a significant correlation of special treatment benefits and accessibility with customer satisfaction. Due to the regulation from the central banks, the interest rates of all the competitive banks are more or less similar. The product differentiation in the financial sector is difficult so banks needs to play in for mentioned factors in order to get better edge than other competitors. Therefore, the bank needs to focus on their core service, relational service i.e. confidence benefits, social benefits; tangible characteristics and last but not the least accessibility in order to improve the customer satisfaction level. The core service of the bank is a multidimensional aspect which includes the service rendered by the employees or the application, service portfolio or service efficiency delivered by the bank whether online or offline. There can be no better opportunity for banks to improve the core service quality in both traditional and online banking through feedback and the suggestion of the customers. Banks who contributes towards understanding relationship between client’s participation and their satisfaction via continuous feedback and then implanting it will be able to maintain strong bonding between service provider and the bank. Banking industry being predominantly a service institution, decision makers of the bank needs to focus on creating new strategies for providing better service to their customers.

Similarly, in financial institution where customers perform financial transaction, a basic level of trust is required. Thus, relational benefits such as confidence benefits, special treatment benefits and social benefits improves the relationship between client and the financial institution resulting increase in trust and confidence of client upon bank and in long term loyalty towards the bank. Thus, key account managers need to focus on the banks clients’ not just balance sheet and create a healthy relation with them. Banks need to emotionalize relationship with the clients so that the relationship between service provider and client is not just about business transactions. Gestures like addressing them personally with their names, greeting them in their special occasions like birthdays or anniversaries, customizable applications according to the customers need or simply providing service to clients with smile will add a different aspect in the relationship.

Physical layout help to change the perception and mood of the customers regarding to the quality, convenience, comfort, efficiency and brand value. Thus,
tangible factors influence customer satisfaction and loyalty. Good ambience of the bank helps to ease the stress of the clients. Proper sitting arrangements, reading material and television in bank branches can help clients to perceive the waiting time in the queue shorter. The layout and architecture of the interface of the ATM and CDMs, web and mobile interface, lighting sounds and the proper maintenance of the services helps on the customers satisfaction. Simiairly, well maintained ATM, CDM machines can help to trigger durable and trustworthy element of the bank. People are anxious about virtual transactions so creating a welcoming and easy to understand web and mobile platform can ease the clients. Moreover, cues to reinforce the online transactions are safe and secure will help to satisfy the customers. In the regression model, the beta of physical environment and tangibles was highest which means that proper investment in the interior designing of bank, machinaries and electronic platform actually is a long term investment for customer satisfaction and brand value of the banks.

Service accessibility of the bank is a necessity in today’s cut throat competitive environment. Whether it is opening hours of banks, strategic locations of ATMs, ADMs in shopping malls or easy access of the websites and mobile applications; better accessibility impacts greatly on the customer satisfaction. In present world, time is money and everybody hates late service. So clients must have access of service whether online or offline without any hiccups. Thus, bank needs to cross market with shopping malls and strategic locations, shopping brands, food and beverage brands, utility providers inorder to be accessible to the customers for the financial transactions. Thus marketers need to strategize and emotionalize their tangible aspects to win the hearts of their customers. Besides, now a-days electronic and online banking has reduced social interaction of client and service provider face to face but social interaction is also important factor as per result. Proper staff training for face to face interactions, telephonic conversations etc is must. Online transactions have concern of safety and thus confidence and trust among service provider and customer is very important. Customers must be assured and also informed about security mechanisms during online transactions to minimize looming problems like hacking, unauthorized access and frauds.

Customers want service ubiquity, depth and width of the service provided, ease of access, minimal problem in service and quick response of the service problems whether With more technological advancement and intense competetions, the factors
influencing customer satisfaction and loyalty will be more complex due to which key decision makers of the banking industry needs to be always vigilant to tackle this challenge and retain customers for profitability and sustainability of the organization.

6.3 Further Studies

The research has been conducted only within few strategic areas over Bangkok and not all over Thailand. Although the findings of the research can be generalized but it has to be kept in mind that the banking behavior might be different in other region of Thailand as well as other countries due to different economic development of country, income level of people and their social cultural values. Moreover, only six factors has been kept in account as determinants of the customer satisfaction and the customer loyalty. As the technology and the context changes, the framework needs to be updated with new factors in the future. The framework has a generalized overview of factors regarding core service quality, relational benefits and tangibles so further study might be required to find the significant factors inside each generalized factors in context to the online and offline banking. Moreover, the attitude towards the customer satisfaction and customer loyalty might be different in depositors and lenders of the banks. Further, the researcher has concluded that perception of customer satisfaction is different in traditional and web banking customers however a depth and detailed study is required to provide a complete overview of these two groups. Thus, further research is recommended regarding the for mentioned differences.
REFERENCES


APPENDIX A
QUESTIONNAIRE

A. Do you use net banking or mobile banking?
   □ Yes (Please continue with the questionnaire)
   □ No (Please return the questionnaire)

Please specify your views on your primary bank. Please mark “〇” on the number that you agree with most. (7 = strongly agree, 6 = Moderately Agree, 5 = Agree, 4 = Neutral, 3 = disagree, 2 = Moderately Disagree, 1 = strongly disagree)

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Service Quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. The transactions of the bank are quick and efficient.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>2. The bank doesn’t take long time to solve my problem.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>3. The bank’s remittance or fund transfer system is efficient</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>4. The bank’s record maintenance procedure is error free</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>5. The bank’s technical employees have required knowledge, skill and abilities.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>6. The charges collected by the bank on various services as debit/credit cards, payment of utilities, ATM service etc. are nominal.</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>7. The interest rates charged on loan by the bank are reasonable</td>
<td>7 6 5 4 3 2 1</td>
<td></td>
</tr>
</tbody>
</table>
8. The interest rates offered by the bank on various deposits are quite good  

9. The banks various schemes are useful and convincing.

<table>
<thead>
<tr>
<th>Special Treatment Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. I feel my personal needs have been met when using the service of the bank.</td>
</tr>
<tr>
<td>11. The banks provide special gifts or services on basis of certain loyalty points collected from the bank transactions.</td>
</tr>
<tr>
<td>12. The electronic portals recommend me service and information according to my preference.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. The bank’s back staff treat me nicely and in friendly manner.</td>
</tr>
<tr>
<td>14. Bank show sincere interest in solving customer problems.</td>
</tr>
<tr>
<td>15. It is easy to communicate and provide feedback to the bank.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Confidence Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. I trust my bank.</td>
</tr>
<tr>
<td>17. I have confidence that employees and the electronic portals of banks perform the bank operations correctly.</td>
</tr>
<tr>
<td>18. I have no anxiety while dealing with the bank</td>
</tr>
<tr>
<td>19. I have confidence at the functioning in the operation of electronic transactions of the bank</td>
</tr>
<tr>
<td>Tangibles</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>20. The bank has modern equipment’s (ATMs, CDMs, computers, cash counting machines etc.)</td>
</tr>
<tr>
<td>21. The interface of the ATM, CDM, mobile and web applications are user friendly and easy to learn.</td>
</tr>
<tr>
<td>22. The interface of the ATM, CDM, mobile and web applications are easy functioning and less time consuming.</td>
</tr>
<tr>
<td>23. The website and mobile applications are visually appealing.</td>
</tr>
<tr>
<td>24. The user interface of the electronic portals are convenient and easy to use.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accessibility</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. The branches of banks and ATMs, ADMs are accessible and in convenient locations</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>26. The electronic cards (ATMs, Credit cards) can be accessed from ATMs or POS machines without any errors.</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>27. The application and website can be accessed 24 hours without slowing of the system</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer Satisfaction</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>28. I am generally pleased with the banking experience.</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>29. I am satisfied with the banks products and service offerings.</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>30. I am satisfied with the net banking experience</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer Loyalty</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>31. This bank is my first choice.</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
32. I will recommend this bank to others.  

<table>
<thead>
<tr>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
</table>

33. I intend to continue using this bank.  

<table>
<thead>
<tr>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
</table>

34. Please Specify your gender:  

- Male 
- Female

35. Please specify your age level:  

- 20 or less  
- 21-30  
- 31-40  
- 41-50  
- 51 and more

36. Please specify your occupation:  

- Student  
- Employee of Private Firm  
- Government Employee  
- Self Employed  
- Unemployed

37. Please specify your income level  

- 20,000 Baht or less  
- 21000-30,000 Baht  
- 31000-40000 Baht  
- 41000-50,000  
- 51000 and more

38. Your Primary bank (Please tick one)  

- Bangkok Bank  
- Kasikorn Bank  
- Krung Thai Bank  
- Bank of Ayuthya  
- Siam Commercial Bank  
- Standard Chartered Bank  
- TMB Bank
### APPENDIX B

**DEPOSIT AND INTEREST RATES OF COMMERCIAL BANKS OF THAILAND**

<table>
<thead>
<tr>
<th>Bank</th>
<th>Saving</th>
<th>Fixed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 mths</td>
<td>6 mths</td>
</tr>
<tr>
<td>Commercial Banks registered in Thailand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangkok Bank</td>
<td>0.5000 - 0.6250</td>
<td>1.0000</td>
</tr>
<tr>
<td>Krung Thai Bank</td>
<td>0.5000</td>
<td>0.9000</td>
</tr>
<tr>
<td>Kasikorn Bank</td>
<td>0.5000</td>
<td>0.9000</td>
</tr>
<tr>
<td>The Siam Commercial Bank</td>
<td>0.5000</td>
<td>0.9000</td>
</tr>
<tr>
<td>Bank of Ayudhya</td>
<td>0.3000</td>
<td>0.9000 - 1.0000</td>
</tr>
<tr>
<td>TMB Bank</td>
<td>0.1250 - 0.7500</td>
<td>0.5000 - 0.6500</td>
</tr>
<tr>
<td>CIMB THAI Bank</td>
<td>0.4000</td>
<td>1.0500</td>
</tr>
<tr>
<td>Standard Chartered Bank (Thai)</td>
<td>0.2500 - 2.5000</td>
<td>0.5500 - 0.8000</td>
</tr>
<tr>
<td>Thanachart Bank</td>
<td>0.4000</td>
<td>0.9500 - 1.0000</td>
</tr>
<tr>
<td>Kiatnakin Bank</td>
<td>0.5000</td>
<td>1.3000 - 1.4500</td>
</tr>
<tr>
<td>Land and Houses Bank</td>
<td>0.6250 - 1.2500</td>
<td>1.6500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bank</th>
<th>MOR</th>
<th>MLR</th>
<th>MRR</th>
<th>Ceiling</th>
<th>Default</th>
<th>Credit Card</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Banks registered in Thailand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangkok Bank</td>
<td>7.3750</td>
<td>6.250</td>
<td>0</td>
<td>7.6250</td>
<td>18.0000</td>
<td>22.8750</td>
</tr>
<tr>
<td>Krung Thai Bank</td>
<td>7.1200</td>
<td>6.275</td>
<td>0</td>
<td>7.6200</td>
<td>17.6200</td>
<td>19.8750</td>
</tr>
<tr>
<td>Kasikorn Bank</td>
<td>7.1200</td>
<td>6.275</td>
<td>0</td>
<td>7.6200</td>
<td>23.1000</td>
<td>25.1000</td>
</tr>
<tr>
<td>The Siam Commercial Bank</td>
<td>7.1200</td>
<td>6.275</td>
<td>0</td>
<td>7.6200</td>
<td>19.6200</td>
<td>22.6200</td>
</tr>
<tr>
<td>Bank of Ayudhya</td>
<td>7.2500</td>
<td>6.600</td>
<td>0</td>
<td>7.7000</td>
<td>21.0000</td>
<td>28.0000</td>
</tr>
<tr>
<td>TMB Bank</td>
<td>7.6750</td>
<td>6.775</td>
<td>0</td>
<td>7.7750</td>
<td>28.0000</td>
<td>28.0000</td>
</tr>
<tr>
<td>United Overseas Bank (Thai) Company Ltd.</td>
<td>7.7000</td>
<td>7.150</td>
<td>0</td>
<td>7.9000</td>
<td>28.0000</td>
<td>28.0000</td>
</tr>
<tr>
<td>CIMB THAI Bank</td>
<td>7.5000</td>
<td>7.000</td>
<td>0</td>
<td>7.9000</td>
<td>28.0000</td>
<td>28.0000</td>
</tr>
<tr>
<td>Standard Chartered Bank (Thai)</td>
<td>8.1000</td>
<td>7.850</td>
<td>0</td>
<td>12.7500</td>
<td>35.0000</td>
<td>35.0000</td>
</tr>
<tr>
<td>Thanachart Bank</td>
<td>7.6750</td>
<td>6.650</td>
<td>0</td>
<td>8.0000</td>
<td>15.7500</td>
<td>18.0000</td>
</tr>
<tr>
<td>TISCO Bank</td>
<td>7.7000</td>
<td>7.000</td>
<td>0</td>
<td>8.3750</td>
<td>36.0000</td>
<td>36.0000</td>
</tr>
<tr>
<td>Mega International Commercial Bank</td>
<td>8.0000</td>
<td>7.250</td>
<td>0</td>
<td>8.0000</td>
<td>12.0000</td>
<td>15.0000</td>
</tr>
<tr>
<td>Kiatnakin Bank</td>
<td>7.7000</td>
<td>7.150</td>
<td>0</td>
<td>8.4000</td>
<td>28.0000</td>
<td>28.0000</td>
</tr>
<tr>
<td>Land and Houses Bank</td>
<td>7.6500</td>
<td>7.025</td>
<td>0</td>
<td>8.0000</td>
<td>18.0000</td>
<td>18.0000</td>
</tr>
<tr>
<td>Bank Name</td>
<td>Rate 1</td>
<td>Rate 2</td>
<td>Rate 3</td>
<td>Rate 4</td>
<td>Rate 5</td>
<td>Rate 6</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Industrial and Commercial Bank of China (Thai)</td>
<td>7.6750</td>
<td>7.150</td>
<td>8.1250</td>
<td>21.0000</td>
<td>21.0000</td>
<td>-</td>
</tr>
<tr>
<td>The Thai Credit Retail Bank</td>
<td>8.9000</td>
<td>6.500</td>
<td>9.1000</td>
<td>35.0000</td>
<td>35.0000</td>
<td>-</td>
</tr>
<tr>
<td>Bank of China (Thai)</td>
<td>8.5000</td>
<td>6.500</td>
<td>7.7500</td>
<td>12.7500</td>
<td>22.2500</td>
<td>20.0000</td>
</tr>
<tr>
<td>ANZ Bank (Thai) Public Company Limited</td>
<td>8.2500</td>
<td>8.250</td>
<td>8.250</td>
<td>25.0000</td>
<td>25.0000</td>
<td>-</td>
</tr>
<tr>
<td>Sumitomo Mitsui Trust Bank (Thai)</td>
<td>9.8750</td>
<td>6.500</td>
<td>8.5000</td>
<td>15.0000</td>
<td>15.0000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Average of Commercial Banks registered in Thailand</strong></td>
<td><strong>7.8361</strong></td>
<td><strong>6.969</strong></td>
<td><strong>8.2644</strong></td>
<td><strong>22.9916</strong></td>
<td><strong>24.7747</strong></td>
<td><strong>19.4444</strong></td>
</tr>
</tbody>
</table>