

**RELATIONSHIP BETWEEN SERVICE QUALITY AND CUSTOMER  
LOYALTY: MEDIATING EFFECT OF CUSTOMER SATISFACTION AND  
CUSTOMER TRUST  
IN THAILAND'S AUDIT FIRMS**



**By**  
**NUCHSARA PRINGVIRIYA**

**UUM**  
**Universiti Utara Malaysia**

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in Partial Fulfillment of the Requirement for the Doctor of Business Administration**



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Tandatangan  
*(Signature)*

Tarikh: **10 September 2015**  
*(Date)*

Nama Pelajar  
(Name of Student)

: Nuchsara Pringviriya

---

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Nama Penyelia/Penyelia-penyelia  
(Name of Supervisor/Supervisors)

: 1. Assoc. Prof. Dr. Faudziah Hanim bt Fadzil

2. Assoc. Prof. Dr. Syed Soffian b. Syed Ismail

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## ABSTRACT

Customer loyalty is a competitive tool for companies. The growth and survival of companies depend on how loyal their customers are, and the audit firm is no exception. Customer loyalty has played an important role in achieving competitive advantages. Customer loyalty can increase a company's income, reduce costs and lead to future revenue. The major drivers of customer loyalty are service quality, customer satisfaction, and customer trust. Therefore, this study explores the relationship among service quality, customer satisfaction, customer trust, and customer loyalty and determines the mediating effect of customer satisfaction and customer trust on the relationship between service quality and customer loyalty in Thailand's audit firms. The SERVQUAL model is an important instrument used to measure service quality in this study. The respondents of the study are public companies listed on the Stock Exchange of Thailand. The auditors are under Thailand's laws and regulations and are approved by the office of the Stock Exchange of Thailand to audit the Securities and Exchange Commission registrants. A total of 507 questionnaires were distributed, and only 296 questionnaires were received. Seven hypotheses were developed and tested with multiple regression and hierarchical regression analysis. The results indicate that the SERVQUAL model is a good measurement of service quality in an audit firm. Firstly, service quality has a strong positive relationship with customer satisfaction, customer trust, and customer loyalty. Secondly, customer satisfaction has a positive relationship with customer loyalty. Thirdly, customer trust has a positive relationship with customer loyalty. Finally, customer satisfaction and customer trust partially mediate the relationship between service quality and customer loyalty. Plausible reasons for the results are discussed within the context of the study. Both practical and theoretical contributions, as well as recommendations for future research made.

**Keywords:** Service quality, Customer satisfaction, Customer trust, Customer loyalty, and Thailand's Audit Firm

## ABSTRAK

Kesetiaan pelanggan merupakan satu alat kompetitif bagi sesebuah syarikat. Perkembangan dan kewujudan sesebuah syarikat adalah bergantung ke atas kesetiaan pelanggan mereka, dan firma audit juga tidak terkecuali. Kesetiaan pelanggan telah memainkan peranan yang penting bagi mencapai kelebihan daya saing. Kesetiaan pelanggan juga boleh menambah pendapatan syarikat, mengurangkan kos dan menambah hasil pada masa hadapan. Pendorong utama kesetiaan pelanggan adalah kualiti perkhidmatan, kepuasan pelanggan dan kepercayaan pelanggan. Olehi tu, kajian ini meneroka hubungan antara kualiti perkhidmatan, kepuasan pelanggan, kepercayaan pelanggan dan kesetiaan pelanggan, serta menentukan kesan pengantara yang mempengaruhi kesan kepuasan pelanggan dan kepercayaan pelanggan keatas hubungan di antara perkhidmatan kualiti dan kesetiaan pelanggan di dalam firma audit di Thailand. Model SERVQUAL merupakan alat yang penting yang digunakan untuk mengukur kualiti perkhidmatan dalam kajian ini. Responden kajian adalah terdiri daripada syarikat awam yang disenaraikan di dalam Bursa Saham Thailand. Juruaudit pula adalah tertakluk di bawah peraturan dan undang-undang Thailand dan telah diluluskan oleh pejabat Bursa Saham Thailand untuk mengaudit para pendaftar Suruhanjaya Sekuriti dan Bursa. Sejumlah 507 borang soal selidik telah diedarkan tetapi hanya 296 soalselidik telah dikembalikan. Tujuh hipotesis telah dibangunkan dan diuji dengan menggunakan analisis regresi hierarki dan regresi pelbagai. Keputusan menunjukkan bahawa model SERVQUAL adalah satu alat pengukuran yang baik untuk meninjau kualiti perkhidmatan disesebuah firma audit. Pertama, kualiti perkhidmatan mempunyai hubungan yang kuat dengan kepuasan pelanggan, kepercayaan pelanggan dan kesetiaan pelanggan. Kedua, kepuasan pelanggan mempunyai hubungan yang positif dengan kepercayaan pelanggan dan kesetiaan pelanggan. Ketiga, kepercayaan pelanggan mempunyai hubungan yang positif dengan kesetiaan pelanggan. Akhirnya, kepuasan pelanggan dan kepercayaan pelanggan adalah sebahagian pengantara hubungan antara perkhidmatan kualiti dan kesetiaan pelanggan. Kajian ini juga telah menyatakan sebab-sebab yang munasabah bagi keputusan yang telah dibincangkan. Sumbangan praktikal dan juga teori, serta cadangan penyelidikan masa hadapan turut dibincangkan.

**Katakunci:**Perkhidmatankualiti,kepuasanpelanggan,kepercayaanpelanggan,kesetiaanpelanggan,dan FirmaAuditdiThailand.

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## LIST OF ABBREVIATIONS

<b>Abb.</b>	<b>Full Lists</b>
ACSI	The American Customer Satisfaction Index
AFC	The Asian Financial Crisis
BSAP	The Board of Supervision of Auditing Practices
Deloitte	Deloitte & Touche Tohmatsu
E&Y	Ernst & Young
FAP	The Federation of Accounting Professions
GAO	General Accounting Office
IFAC	International Federation of Accountants
IMF	The International Monetary Fund
ISE	The Istanbul Stock Exchange
KMO	The Kaiser-Meyer-Olkin
KPMG	Klynveld Peat Marwick Goerdeler
MMS	Measure of Service Superiority
MSA	Measure of Service Adequacy
PCA	Principal Component Extraction
PLS	Partial Least Square Analysis
PwC	PricewaterhouseCoopers
ROSC	Report on the Observance of Standards and Codes
SEC	The Securities and Exchange Commission
SEM	Structural Equation Modeling
SET	The Stock Exchange of Thailand
SPSS	The Statistical Package for Social Science
TSQC	Thai Standard on Quality Control
UAE	United Arab Emirates
UK	The United Kingdom

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.0 Background of the Study**

The market for audit service is generally viewed as a monopolistic competition (Shailer, Cummings, Vatuloka, and Welch, 2004). In Thailand, audit firms are competing with each other and faced with higher costs and high risk activities in order to generate higher returns (Sonsa-ardjit and Vejaratpimol, 2010). Competition in the audit firm has been intense, with a variety of service is being offered (that is: auditing, bookkeeping/accounting, payroll, tax, legal, consulting, investment/financial advising, and corporate recovery) to satisfy customer needs. Some audit firms differentiate themselves from their competitors by specializes in auditing clients of particular industries.

The increasing competition and innovation in the audit firms are beneficial to customers. Increasing competition between audit businesses has led many companies to consider quality as a strategic tool capable of influencing customer satisfaction, customer trust and customer loyalty (Seto-Pamies, 2012; Shpetiem, 2012; Luo and Bhattacharya, 2006; Ismail, Haron, Ibrahim and Isa, 2006; Lin and Wang, 2006). The growth and survival of these companies depends on the loyalty of their customers. Customer loyalty has a crucial role for audit firms in order to achieve the competitive advantages (Lin and Wang, 2006). The customers' loyalty increases the company's remuneration and decreases costs (Bodet, 2008). Several audit firms have adopted a

customer relation management (CRM) platform to serve the specific needs of different customer segments. Audit firms could differentiate their services by providing a higher quality of services. In order to have a competitive advantage, a firm may choose to improve its service quality to differentiate their service from their competitor. The audit firms know that perceiving service quality can benefit audit firms in a quantitative and qualitative way.

The Big-Four audit firms which are the top accounting firms for the year 2013 (www.accountancyage.com; 2014) are PricewaterhouseCoopers (PwC), Deloitte&Touche Tohmatsu (Deloitte), Klynveld Peat Marwick Goerdeler (KPMG), and Ernst & Young (E&Y). All four of them are multinational companies which provide services around the world (Eilifsen, Messier, Glover, and Prawitt, 2006). General Accounting Office (2003) found that these Big-Four audit firms are able to command a higher fee premium between 16 to 37% of the audit cost. Within each quality segment, the market is considered as being generally competitive (Deng, Lu, Simunic and Ye, 2014; Gul, Sami and Zhou, 2009). However, a change in the auditor is not always initiated by the client, but may be initiated by the audit firm. Francis and Yu (2009) argue that audit firms with more clients have a greater incentive to supply higher quality audits.

In Thailand, the Big-Four audit firms are mega organisations with unlimited human resources, technical capabilities; huge earnings; and market power (Sonsa-ardjit and Vejaratpimol, 2010). Even the client's of the Big-Four audit firms' and Non Big-Four audit firms' differ in size, standards, perceptions, and expectations. The Non Big-Four audit firms' clients does not contribute much to the society and the

economy compared with the clients of the Big-Four audit firms which consist of bigger enterprises with a greater potential that can seriously damage the market or economy (Thai Institute of Directors Association, 2013).

In 2013, the Thailand Institute of Directors Association surveyed the audit fee in Thailand's audit firms and discovers that among the Big-Four audit firms, E&Y Office Co., Ltd. is the largest audit firm with audit fee revenues of USD 6.31 million (33%). KPMG Phoomchai Audit Co., Ltd. is ranked second between the Big-Four firms with audit fee revenues of USD 4.49 million (23%) and Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd. took third place with audit fee revenues of USD 2.07 million (11%). PwC ABAS Co., Ltd. has the least audit fee revenues among the Big-Four firms with revenue of USD 1.88 million (10%). The total of the Big-Four audit firm's revenues for 2013 are USD 14.75 million (77%) while the Non Big-Four audit firms' revenue amounts to USD 4.49 million (23%). Table 1.1 shows the audit fee by the Big-Four and Non Big-Four audit firms in Thailand for the fiscal year ended 2013.

Table 1.1  
*Audit Fee by Big-Four and Non Big-Four Audit Firms in Thailand for the Fiscal Year Ended 2013*

<b>Firm</b>	<b>In Millions of USD</b>	
	<b>Audit Fee</b>	<b>%</b>
E Y Office Co., Ltd.	6.31	33
KPMG Phoomchai Audit Co., Ltd.	4.49	23
Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd	2.07	11
PricewaterhouseCoopers ABAS Co., Ltd.	1.88	10
<b>Total Big-Four Audit Firms</b>	<b>14.75</b>	<b>77</b>
Non Big-Four Audit Firms (23 companies)	4.49	23
<b>Grand Total</b>	<b>19.24</b>	<b>100</b>

Source: Thai Institute of Directors Association, 2013

Table 1.2 shows the number of customer of the Big-Four and Non Big-Four audit firms in Thailand for the fiscal year ending 2013. There are 286 (53%) companies listed on The Stock Exchange of Thailand which uses audit services from the Big-Four audit firms. 259 (47%) of the companies listed on The Stock Exchange of Thailand uses audit services from the Non Big-Four audit firms. E&Y Office Co., Ltd. has the most amounts of clients listed in The Stock Exchange of Thailand with 157 (29%) companies. The second is KPMG Phoomchai Audit Co., Ltd. with 71 (13%) companies, third is PricewaterhouseCoopers ABAS Co., Ltd. with 33 (6%) companies, and lastly is the Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd with 25 (5%) companies.

Table 1.2  
*Number of Customer of Big-Four and Non Big-Four Audit Firms in Thailand for the Fiscal Year Ended 2013*

<b>Firm</b>	<b>Number of Customers</b>	<b>%</b>
E Y Office Co., Ltd.	157	29
KPMG Phoomchai Audit Co., Ltd.	71	13
PricewaterhouseCoopers ABAS Co., Ltd.	33	6
Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd.	25	5
<b>Total Big-Four Audit Firms</b>	<b>286</b>	<b>53</b>
Non Big-Four Audit Firms (23 companies)	259	47
<b>Grand Total</b>	<b>545</b>	<b>100</b>

Source: The Securities and Exchange Commission (SEC), Thailand, 2013

However, these concepts and tools for improving service quality are not yet familiar and many industries are not yet accustomed in using them. Therefore, efforts are needed to equip these industries to improve their services in respect to their loyal customers.

When a service of higher quality is provided it will lessen the amount of complaints, increase customer's satisfaction, trust, and loyalty and in return the customer will pay a higher price to the service provider. As stated before, a customer's loyalty can increase a company's income and reduces costs. According to Bodet (2008), customer's loyalty could lead to an increase of 25 to 85 percent in profit. Shpetiem (2012), Caceras and Paparoidamis (2007), Luo and Bhattacharya (2006), Ranaweera and Prabhu (2003), Oliver (1997), Fornell (1992) stated that customer satisfaction is a major component that influences customer loyalty and leads to future revenue. On the other hand, researches by Yap, Ramayah, and Shahidan (2012), Shpetiem (2012), Caceras and Paparoidamis (2007), Aydin and Ozer (2005), Ranaweera and Prabhu (2003) discovers that trust is a crucial element and has an influence on building customer's loyalty. Customer trust is beneficial to the company because it increases sales, reduces cost and will spread positive rumors about the company (Yap et al., 2012, Akbar and Parvez, 2009; Ribbink, van Riel, Lilijander and Streukens 2004). Thus, customer satisfaction and customer trust are essential and useful for audit firms in developing their strategies to increase the level of customer loyalty in the context of Thailand.

### **1.1 Problem Statement**

The 1997 Asian financial crisis (AFC) began in Thailand disperse rapidly effecting the world's economy. However, during this time of crisis, Thailand had already sought out loans from the International Monetary Fund (IMF). The AFC had affected the financial sector and made its way towards the economic sector. The fore boding of the AFC can be seen in 1996, a year before it actually happens. Some of the signs include the decreasing rate of export growth, the manufacturing competitiveness fell,

asset prices began reflecting misalignment, and the balance of payment deficit shot up, increasing short-term speculations and creating scandals in the financial sector (Kittiprapas, 2002).

In post of the AFC, Thailand, started the regulatory measures to improve accounting practices and paid more attention to local and foreign regulators on the excessive use of short-term foreign debt to finance long-term projects. In this regulation, the auditors took additional precautions to safeguard themselves against the increased possibility of litigation due to the increasing number of business failures during the crisis. The Securities and Exchange Commission of Thailand started reviewing the accounting principles and practices of listed companies to bring them in line with the best international practices (Metzger Butler, and Willenborg (2004). Tougher requirements were use in improving financial reporting which includes disclosure of external liabilities and off-balance-sheet liabilities. Furthermore, all Thailand listed companies which were required to establish audit committees comprised of independent directors.

It is also required by the Thailand (1962) law that the financial statements of every company which is registered in Thailand to be audited by the auditors. As of December 31, 2013 they are 1,175 auditors registered under The Federation of Accounting Professions under The Royal Patronage of His Majesty the King and 47 audit firms registered under The Revenue Department. Only 27 audit firms and 145 auditors under Thailand's law, regulations which are approved by the office of the Securities and Exchange Commissions in order to audit the public companies listed on the Stock Exchange of Thailand. Hence, the demand for audit services increase

day by day, following the increasing numbers of the registered companies. Due to this situation, the demand for audit service has increased rapidly with the number of audit firms and auditors have slowly increased.

The increasing numbers of the registered companies create concerns about the increasing competition among audit firms. It may engage in price cutting behaviour by providing an initial fee discount to new clients and increases the fee later. Price competition may impair auditor independence because the audit firm must recoup losses on the initial audit from future audit fees. This practice may also reduce the auditing quality (Sittiphonvanichkun and Phadungsit, 2007). Therefore, the audit firms must be considering quality of service to increase customer loyalty.

Customer loyalty is one of the most important constructs in service marketing. Loyal customers that foster in repurchases are the fundamentals of any business. The role of customer loyalty in the context of service marketing variables is likely service quality, customer satisfaction, and customer trust. Service quality has been the subject of considerable interest in recent years, spurred on by the original work by Parasuraman et al. (1985). Customer perception of service quality is critical to fostering customer satisfaction, customer trust, customer loyalty, growth of market share and financial performance (Lewis and Mithcell, 1990). A study by Oliver (1997) found that a customer's perception of service quality is important to a firm's long term success because of the perception has a significant influence on the customer satisfaction, customer trust, and customer loyalty indicators of organizational performance. Firms with a higher service perceived by customer typically have a greater market share, a higher return on investment, and a higher

asset turnover compared with firms which services perceived as being low quality (Kim and Kim, 2004). Therefore, audit firms must work harder in providing a higher level of service quality to ensure customer satisfaction, customer trust, and customer loyalty.

To the knowledge of the study to examine the relationship between service quality and customer loyalty via customer satisfaction and customer trust, especially in Thailand's audit firms. There are only two empirical studied projects that have been conducted with regard to service quality, customer satisfaction, customer trust, and customer loyalty and their early effects. The only study that was found is the effect of service quality towards customer satisfaction in Thailand's audit firms. For example, Liamprawat (2009) has conducted a research regarding customer satisfaction towards audit service of audit firm in Chiang Mai, Thailand. This study discovers that customer satisfaction had a significant regard with service quality. Praditvorakhun (2003), on the other hand studied factors affecting customer satisfaction towards auditing in Thailand. The results shows service quality has an effect on customer satisfaction.

Due to the lack of the previous studies, this study wishes to explore the possible relationships between service quality and customer loyalty; mediating effect of customer satisfaction and customer trust in the context of Thailand's audit firms. Since customer satisfaction and customer trust are the most important indicators of service quality on customer loyalty.

## **1.2 Research Questions**

In this study, the main factors that have influence the loyalty of customer's are the service quality, customer satisfaction and trust. Relationships are established among these factors. The perception quality is an antecedent of attitude while service quality is an antecedent of customer satisfaction, customer trust and customer loyalty. Customer satisfaction has a direct effect on customer loyalty. Customer trust is an antecedent of customer loyalty. Customer satisfaction and customer trust are mediating on the relationship between service quality and customer loyalty. The research questions are as follows:

- (1) What is the relationship of audit firm's service quality with the customer's satisfaction, trust, and loyalty in Thailand's audit firms?
- (2) What is the relationship between customer satisfaction and loyalty in Thailand's audit firms?
- (3) What is the relationship between customer trust and loyalty in Thailand's audit firms?
- (4) What is the effect of customer satisfaction mediating on the relationship between service quality and customer loyalty in Thailand's audit firms?
- (5) What is the effect of customer trust mediating on the relationship between service quality and customer loyalty in Thailand's audit firms?

## **1.3 Research Objectives**

The purpose of this study is to examine the relationships between service quality and customer loyalty; mediating effect of customer satisfactions, trust, and loyalty in Thailand's audit firms. The study applies the SERVQUAL model with five dimensions which provides a measurement of service quality related to customer

satisfaction. SERVQUAL has been applied in accounting and auditing firms from 1996 (Ismail, Haron, Ibrahim and Isa, 2006; Kang and Bradley, 2002; Keng and Liu, 1997). Increasing in perceived quality of service direct effects the satisfaction, trust, and loyalty of customer, and increases customer satisfaction and customer trust will significantly affect their loyalty. Thus, the study uses customer satisfaction and trust to act as the mediating variable between the quality of service and client's loyalty.

The audit firms were investigated with the following objectives set for the study:

- (1) To determine whether service quality will affect the customer satisfaction, trust, and loyalty in Thailand's audit firms.
- (2) To determine whether customer satisfaction will affect customer loyalty in Thailand's audit firms.
- (3) To determine whether customer trust will affect customer loyalty in Thailand's audit firms.
- (4) To determine the mediating affect customer satisfaction has on the relationship between service quality and customer loyalty in Thailand's audit firms.
- (5) To determine the mediating affect customer trust has on the relationship between service quality and customer loyalty in Thailand's audit firms.

#### **1.4 Significance of the Study**

The study's significance can be seen from both theoretical and practical perspective, especially in Thailand's audit firms. The data was collected in the country where there are significant differences from other countries in terms of perceived service quality provided by Thailand's audit firms. Therefore, new findings may be produced.

Theoretically, the study produces a new body of ideas for extent the stream of literature review on the relationship among service quality, customer satisfaction, customer trust, and customer loyalty. Furthermore, the role of value as a mediator also was added on to the existing findings of the previous study which mainly focused on as single item measurement as compared to multi items scale measurement. Then the findings may also be beneficial to the development of consumer behavior theory, especially in service business.

For practitioners, the results of this study will enable audit firms to have a better understanding of the customers' needs and redesign their strategies to improve service quality and its effect on client's satisfaction, trust as well as loyalty. The study would contribute to the management and the staff at all level as well. The finding would provide to the top management, particularly in the audit firms, as the basis for improving service quality to increase customer satisfaction, trust, and loyalty. The results of this study will potentially contribute to audit firm quality improvement.

Overall, the results of the study can contribute to the knowledge in the academic fields, research institutions, learning institutions as well as practitioners under the audit firm. The findings will also be beneficial to the customer in selecting audit firm.

### **1.5 Scope and Limitations of the Study**

This study focuses on the public companies listed in The Stock Exchange of Thailand (SET) as of December 31, 2013. There are 507 companies listed excluding

95 medium-sized enterprises and 34 companies under rehabilitation. These companies should be using auditors authorized under Thailand's law and regulations and are approved by the office of SET in order to audit for The Securities and Exchange Commission (SEC) registrants. In 2013, there are 27 audit firms and 146 auditors under Thailand's law and regulation and are given consent by the office of the SET. The Big-Four audit firms have 80 auditors (54.79%) and Non Big-Four audit firms have 66 auditors (45.21%) under 23 firms.

## **1.6 Definition of Terms**

For the purposed of this research study, the following terms will be utilized:

### **1.6.1 Service Quality**

Service quality is the difference between the customer's expectation of service and perceived service (SERVQUAL). If the customer has a higher expectation regarding the service, then the perceived quality is likely to be unsatisfactory and customer dissatisfaction will occur (Parasuraman, Zeithaml, and Berry, 1990).

### **1.6.2 Customer Satisfaction**

Customer satisfaction is the fulfilling response by the consumer. It is a judgment that a service features, provides a pleasurable amount of consumption-related fulfillment, including levels of under or over fulfillment (Oliver, 1997).

### **1.6.3 Customer Trust**

Customer trust is defined as a condition linking certain optimistic opportunity about another's intention with respect to oneself in a risky state of affairs (Boon and Holmes, 1991).

### **1.6.4 Customer Loyalty**

Customer loyalty is the consistency in repurchasing a certain product/service or brand over an extended period of time by a customer (Oliver, 1997).

### **1.6.5 Audit Firm**

Audit firm is a registered accounting firm performing an independent audit of a public company. There perform auditing and non-auditing service such as book keeping/accounting, tax, legal, consulting, investment/financial advising and corporate recovery (The Stock Exchange of Thailand, 2013).

### **1.6.6 Audit Firm's Customer**

Audit firm's customer is the public company listed on The Stock Exchange of Thailand, who buys auditing and non-auditing service from audit firms in Thailand (The Stock Exchange of Thailand, 2013).

### **1.6.7 Authorised Auditor**

Authorised auditor refers to an individual who has been given license to act as an auditor, and which license has not yet expired, suspended or revoked (Auditor Act, B.E. 2505: 1962).

## **1.7 Organisation of the Study**

This study is organised into five chapters. Chapter 1 describes the background of the study, problem statement, research questions, research objectives, significance of the study, scope and limitations of the study, definition of term and the organisation of the study.

Chapter 2 gave a review literature concerning the relationships between service quality and customer loyalty: mediating effect of customer satisfaction and customer trust, and an explanation of the study's grounding in organisational theory.

Chapter 3 outlines the research framework, hypotheses, methodology, operational definition, measurement of variables, method of data analysis, and hypotheses testing summary.

Chapter 4 presents the empirical study including data analysis and findings of the research.

Finally, chapter 5 presents the summarised the findings, conclusion, implication and limitations of the study. The finding leads to recommendation for the future research.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter presents an overview of the literature that relates to the topic of study namely the relationships between service quality and customer loyalty; mediating effect of customer satisfaction and customer trust in Thailand's audit firms. This chapter consists of an overview of the audit industry, auditing in Thailand, customer loyalty, service quality, customer satisfaction, customer trust, previous literatures on relationship among service quality, customer satisfaction, customer trust, and customer loyalty, underpinning theory, summary of literature and chapter summary.

#### **2.1 Overview of Audit Industry**

Audit industry is the industry specialist invests time and financial resources in developing personnel and technology in specific industries in order to improve audit quality (Lim and Tan, 2010). In this industry, the large companies (classified by size and number of the auditors) provide a higher quality of service due to the fact that they have greater reputations to protect and act as a tight oligopoly (General Accounting Office, 2003). In this respect, the Big-Four audit firms control more than 60% of the market and Non Big-Four audit firms face difficulties in terms of entering the market (General Accounting Office, 2003).

- **Big-Four Audit Firms**

Big-Four audit firms are defined as the four largest international accountancy and professional service firms. This firm's handles the audit for nearly all publicly traded companies as well as many private companies, creating an oligopoly in auditing large companies (GAO, 2003).

The Big-Four consist of Ernst & Young Office Limited, KPMG Phoomchai Audit Ltd., PricewaterhouseCoopers ABAS Limited, and Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd.

1) Ernst & Young Office Limited is among the most influential professional services firms in the world. The headquarters is in London, United Kingdom. Their main business includes: assurance (audit), advisory (consulting), transactions (merger and acquisitions), and tax ([www.ey.com](http://www.ey.com)).

2) KPMG Phoomchai Audit Ltd. is also one of the largest professional services. Its headquarters is in Amstelveen, The Netherlands. Their main lines of work include audit, advisory (consulting), and tax ([www.kpmg.com](http://www.kpmg.com)).

3) PricewaterhouseCoopers ABAS Limited is a global professional services firm located in London, United Kingdom. They mainly focuses in assurance (audit) advisory (consulting), transaction (mergers and acquisitions), and tax ([www.pwc.com](http://www.pwc.com)).

4) Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd. is the largest private professional services organisation in the world. Its headquarters is located in New York, USA. The main lines of business include assurance (audit), consulting, mergers and acquisitions, and tax ([www.deloitte.com](http://www.deloitte.com)).

- **Non Big-Four Audit Firms**

Non-Big Four audit firms are defined as accountancy and professional service firms. They provide accounting, accounting and tax consulting, legal service and auditing services for a fee. They are mainly all the audit firms excluding the Big Four.

In the United Kingdom (UK), the Big-Four audit firms are the top rank accounting firms in the years of 2012 and 2013 (www.accountancyage.com, 2014). The Big-Four audit firms held 90% of the audit market (Beattie, Goodcare, and Fearnley, 2003). PwC is the biggest Big-Four audit firm with revenues of USD 3,538.35 million, Deloitte is the second Big-Four audit firm with revenues of USD 3,144.15 million, the next is KPMG with revenues of USD 2,394.9 million, and the smallest Big-Four audit firm is EY with revenues of USD 2,200.50 million. Table 2.1 shows the top accounting firms in UK for the year ended 2013.

Table 2.1  
*The Top Accounting Firms in United Kingdom for the Year Ended 2013*

In Billions of USD					
<b>Rank 2013 (2012)</b>	<b>Name of Firm</b>	<b>UK Fee Income</b>	<b>% change (vs 2012)</b>	<b>Year end</b>	<b>UK partners</b>
1 (1)	PricewaterhouseCoopers	3,538.35	7.00	30/06/12	872
2 (2)	Deloitte & Touche	3,144.15	11.00	31/05/12	1,011
3 (3)	KPMG	2,394.90	4.00	30/09/12	578
4 (4)	Ernst & Young	2,200.50	11.00	30/06/12	549
5 (5)	Grant Thornton UK	621.00	10.30	30/06/13	200
6 (6)	BDO	407.70	7.50	30/06/13	252
7 (7)	RSM Tenon Group	279.45	-12.00	31/12/12	219
8 (8)	Smith & Williamson	250.70	4.00	30/04/13	261
9 (9)	Baker Tilly	230.85	-5.00	31/03/12	107
10 (10)	Moor Stephens UK	183.47	-1.70	31/12/12	155

Source: The Top 50 Plus Accounting Firms in 2013 by www.accountancyage.com, 2014

Globally, the total profits for the Big-Four audit firms for the fiscal year ended 2013 increased 3.17% from USD 110.3 billion in the fiscal year ended 2012 in USD terms to a high level of USD 113.8 billion. This amount is the highest amount grossed from the Big-Four and even surpasses their previous gain of USD 101.3 billion during the height of 2008, the global boom.

For the fiscal year ending 2010, these firms posted combine revenue of USD 95.1 billion, unable to exceed their previous record of over USD 101.3 billion in 2008. However, in the fiscal year ended 2011, 2011 turns out to be a more successful year with revenues of USD 103.6 billion, easily surpassing their record in 2008. Table 2.2 shows the Big-Four audit firms' revenues for the fiscal years ending 2008 to 2013.

Table 2.2  
*The Big-Four Audit Firms' Revenues for the Fiscal Years Ending 2008 to 2013*  
In Billions of USD

<b>Audit Firm</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Pricewaterhouse Coopers	32.1	31.5	29.2	26.6	26.2	28.2
Deloitte & Touche	32.4	31.3	28.8	26.6	26.1	27.4
Ernst & Young	25.9	24.4	22.9	21.2	21.4	23.0
KPMG	23.4	23.0	22.7	20.7	20.1	22.7
<b>Total</b>	<b>113.8</b>	<b>110.3</b>	<b>103.6</b>	<b>95.1</b>	<b>93.8</b>	<b>101.3</b>

Source: The 2013 Big-Four Firms Performance Analysis by [www.big4.com](http://www.big4.com), 2014

As fiscal year 2013 ended, the total revenues of Big-Four audit firms are USD 113.8 billion. Deloitte is the highest grossing revenues among the Big-Four audit firms with revenues of USD 32.4 billion. Second, is the PwC with revenues of USD 32.1

billion. Next, is the EY with revenues of USD 25.9 billion, and lastly KPMG with revenues of USD 23.4 billion.

The audit service is the core service of the audit firms based on the service line revenues of the Big-Four audit firms. In 2013, audit revenues was USD 49.06 billion (43.12%), advisory revenues was USD 38.54 billion (33.87%), and tax revenues was USD 26.18 billion (23.01%). Table 2.3 shows the revenues by service line of the Big-Four audit firms for the fiscal year ended 2013.

Table 2.3  
*The Big-Four Audit Firms' Revenues by Service Line for the Fiscal Year Ended 2013*  
In Billions of USD

Service Line	PwC	Deloitte	E&Y	KPMG	Total	%
Audit	14.76	13.10	10.99	10.21	49.06	43.12
Advisory	9.15	13.20	7.95	8.24	38.54	33.87
Tax	8.18	6.10	6.94	4.96	26.18	23.01
<b>Total</b>	<b>32.09</b>	<b>32.40</b>	<b>25.88</b>	<b>23.41</b>	<b>113.78</b>	<b>100.00</b>

Source: Financial Report for The Fiscal Year Ended 2013 by [www.pwc.com](http://www.pwc.com), [www.deloitte.com](http://www.deloitte.com), [www.ey.com](http://www.ey.com), [www.kpmg.com](http://www.kpmg.com), 2014

## 2.2 Overview of Auditing in Thailand

### 2.2.1 Auditing Regulation in Thailand

#### 2.2.1.1 Auditor Act, B.E. 2505 (1962)

In Thailand, an authorised auditor under the Auditor Act, B.E. 2505 (1962) is an individual granted license to act as an auditor and their permit has not expired, suspended or revoked. The person to be eligible for registration as an authorised auditor has to have;

(1) a degree in accountancy or holds a certificate in accountancy which is recognised by the Board of Supervision of Auditing Practices (BSAP) as not lower than the bachelor degree in accountancy, or carries a degree or certificate not lower than bachelor degree which the course includes accountancy and considered by the BSAP fit for being an authorised auditor;

(2) experienced in auditing and considered by the BSAP as fit to become an authorised auditor;

(3) are twenty year of age or more;

(4) a Thailand citizen or of a country that allows a Thai citizen to become an auditor;

(5) a person with a high value of moral;

(6) never been sentenced to imprisonment in a case considered by the BSAP as may bring discredit to the profession;

(7) a sane or not mentally ill person;

(8) are not involved in other occupations which are deemed not suitable or which will limit the freedom to perform the duties of an auditor.

According to the Auditor Act, B.E. 2505 (1962), the authorised auditor license are valid for five years from the date of its issue, must have an office and inform the BSAP at the time the application for license has been submitting.

The auditors who need to examine the public companies listed on the SET should be a licensed auditor under the law related to auditing and not an employee of the Securities Exchange.

The Securities and Exchange Act B.E. 2535 (1992) stipulates that the SEC, is to act as the regulator of the Thai capital market. The capital market is governed by the Securities and Exchange Act and must abide all the rules and regulations. These legislative and regulatory instruments require all companies to prepare a quarterly financial statement and any financial statements for any period in accordance with Thailand Accounting Standards. Annual or semi-annual financial statements must be audited, while quarterly financial statements must be reviewed by a SEC approved auditor, who has been scrutinised by the Federation of Accounting Professions (FAP) and Quality Screening Committee (Report on the Observance of Standards and Codes (ROSC), Accounting and Auditing, Thailand, 2008).

The auditors must make a review or audit, if they find that a company has issues that inaccurately prepared a financial statement for any accounting period, the auditor must report his findings and disclose the material facts to the financial statement and notify this in his report and report the matter to the SEC. The office of The Securities and Exchange Commission has the power to withdraw its approval for any auditor.

#### **2.2.1.2 Quality Control of Auditors**

The Federation of Accounting Profession (FAP) under the Royal Patronage of His Majesty the King has set out the Thai Standard on Quality Control (TSQC) 1, for firms that perform audits, financial statements reviews, assurance and other related service engagement, effecting on 1 January 2014. This includes with the firm's responsibilities for its system of quality control designed to provide it with assurance that;

- (i) the firm and its personnel must comply with the professional standards and is applicable to the legal and regulatory requirements
- (ii) ensures that reports issued are appropriate in the circumstances.

This in return will enhance the audit's quality, promotes public trust, as well as reduces the risks of auditing failures which will negatively affect capital market and the economy.

The International Federation of Accountants (IFAC) approves the International Standard on Quality Control 1, of which TSQC1 is based on, in 2005, and was amended in 2009. However, the TSQC1 draft was distributed in 2010 and was publicized in the beginning of 2011. The official effective date of the draft is 1 January 2014 but earlier adoption is encouraged. Thailand audit firms and auditors should be well-prepared in advance to establish or improve their existing quality system to comply with the standard.

#### **2.2.1.3 Elements of a System of Quality Control**

(1) Leadership. The firm must establish policies and procedures to promote an internal culture recognising that quality is important in any engagements. These will require the management to assume responsibility for the firm's system of quality control.

(2) Relevant ethical requirements. Policies and procedures are established to provide assurance that the firm complies with ethical requirements.

(3) Acceptance and continuance of client relationships and specific engagements. The firm shall establish policies and procedures for the acceptance and continuance of the client relationships and specific engagements.

(4) Human resources. The firm has policies and procedures designed to provide it with reasonable assurance that it has sufficient amount of personnel with the necessary competence, capabilities, and commitment to ethical principles.

(5) Engagement performance. The firm's policies and procedures are designed to provide it with reasonable assurance that engagements are performed in accordance with professional standards which meets legal and regulatory requirements.

(6) Monitoring. The firm shall establish a monitoring process designed to provide it with reasonable assurance that the policies and procedures relating to the system of quality control are relevant, adequate, and operates effectively.

### **2.2.2 Audit Market in Thailand**

In the fiscal year ended 2013, there are 27 audit firms and 145 auditors under Thailand's law, regulation, and was approved by the SEC. The Big- Four audit firms have 79 auditors (54.48%) while the Non Big-Four audit firms have 66 auditors (45.52%) under 23 audit firms. Table 2.4 shows a list of auditors approved by the office of The Securities and Exchange Commission as of December 31, 2013.

Table 2.4

*List of Auditors Approved by the Office of the Securities and Exchange Commission as of December 31, 2013*

No.	Firm	No. of Auditors	%
<b>Big-Four Audit Firms:</b>			
1	E Y Office Co., Ltd.	23	15.86
2	KPMG Phoomchai Audit Co., Ltd.	26	17.93
3	Pricewaterhousecoopers ABAS Co., Ltd.	19	13.10
4	Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd.	11	7.59
<b>Total</b>		<b>79</b>	<b>54.48</b>
<b>Non Big-Four Audit Firms:</b>			
1	A.M.T. & Associates	4	2.76
2	ANS Audit Co., Ltd.	5	3.45
3	AST Master Co., Ltd.	2	1.38
4	ASV & Associates Co., Ltd.	2	1.38
5	Baker Tilly Audit and Advisory Services (Thailand) Co., Ltd.	1	0.69
6	BDO Co., Ltd.	2	1.38
7	BPR Audit and Advisory Co., Ltd.	2	1.38
8	Bunchikij Co., Ltd.	2	1.38
9	C&A Accounting Firm	2	1.38
10	D I A International Auditing Co., Ltd.	5	3.45
11	Dhammini Auditing Co., Ltd.	5	3.45
12	Dr. Virach and Associates Co., Ltd.	3	2.07
13	Grant Thornton Co., Ltd.	4	2.76
14	Karin Audit Co., Ltd.	4	2.76
15	M.R. & Associates Co., Ltd.	3	2.07
16	NPS Siam Audit Co., Ltd.	2	1.38
17	Office of Pitisevi Co., Ltd.	2	1.38
18	PV Audit Co., Ltd.	5	3.45
19	RSM Audit Services (Thailand) Co., Ltd.	2	1.38
20	S.K. Accountant Services Co., Ltd.	2	1.38
21	Sam Nak-Ngan A.M.C. Co., Ltd.	3	2.07
22	SP Audit Co., Ltd.	3	2.07
23	United Auditing Co., Ltd.	1	0.69
<b>Total</b>		<b>66</b>	<b>45.52</b>
<b>Grand Total</b>		<b>145</b>	<b>100.00</b>

Source: The Securities and Exchange Commission (SEC), Thailand, 2013

In Thailand, all the public limited company established under the Public Limited Companies Act, B.E. 2535 (1992) must prepare financial statements and reports

concerning their financial condition and the business operation and submit it to the office of the SEC. This financial report must be reviewed by an auditor who has already been approved. In 2011, there are 286 customers of Big-Four audit firms and 295 customers of Non Big-Four audit firms in Thailand. Table 2.5 shows the number of customers of Big-Four audit firms and Non Big-Four audit firms by industrial sector as of December 31, 2011.



Table 2.5

*Number of Customer of Big-Four Audit Firms and Non Big-Four Audit Firms by Industrial Sector as of December 31, 2011*

No	Industry / Sector	E Y	KPMG	PwC	Deloitte	Total	Non Big-Four	Total
1	Companies Under Rehabilitation	7	1	0	1	9	27	36
2	Medium-Sized Enterprise	10	7	2	1	20	54	74
	<b>Total</b>	<b>17</b>	<b>8</b>	<b>2</b>	<b>2</b>	<b>29</b>	<b>81</b>	<b>110</b>
	Agro & Food Industry							
1	Agribusiness	7	2	3	2	14	0	14
	Food and Beverage	12	6	0	0	18	8	26
	<b>Total</b>	<b>19</b>	<b>8</b>	<b>3</b>	<b>2</b>	<b>32</b>	<b>8</b>	<b>40</b>
	Consumer Products							
2	Fashion	6	2	0	1	9	14	23
	Home & Office Products	3	2	1	0	6	4	10
	Personal Products & Pharmaceuticals	1	1	0	1	3	3	6
	<b>Total</b>	<b>10</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>18</b>	<b>21</b>	<b>39</b>
	Financials							
3	Banking	5	2	1	3	11	0	11
	Finance and Securities	13	1	1	10	25	6	31
	Insurance	9	2	0	1	12	5	17
	<b>Total</b>	<b>27</b>	<b>5</b>	<b>2</b>	<b>14</b>	<b>48</b>	<b>11</b>	<b>59</b>
	Industrials							
4	Automotive	3	2	3	0	8	9	17
	Industrial Materials & Machinery	4	1	0	0	5	1	6
	Packaging	2	2	0	0	4	8	12
	Paper & Printing Materials	1	1	0	0	2	0	2
	Petrochemicals & Chemicals	6	3	0	0	9	3	12
	Steel	3	3	1	1	8	19	27
	<b>Total</b>	<b>19</b>	<b>12</b>	<b>4</b>	<b>1</b>	<b>36</b>	<b>40</b>	<b>76</b>

Table 2.5 (continued)

No	Industry / Sector	E Y	KPMG	PwC	Deloitte	Total	Non Big-Four	Total
Property & Construction								
5	Construction Materials	6	4	0	3	13	5	18
	Property Development	20	7	4	0	31	30	61
	Property Fund	0	0	0	0	0	35	35
	<b>Total</b>	<b>26</b>	<b>11</b>	<b>4</b>	<b>3</b>	<b>44</b>	<b>70</b>	<b>114</b>
Resources								
6	Energy & Utilities	3	3	7	1	14	10	24
	Mining	0	0	1	0	1	0	1
	<b>Total</b>	<b>3</b>	<b>3</b>	<b>8</b>	<b>1</b>	<b>15</b>	<b>10</b>	<b>25</b>
Services								
7	Commerce	3	5	1	0	9	4	13
	Health Care Services	4	1	0	0	5	8	13
	Media & Publishing	3	3	2	0	8	17	25
	Professional Services	0	0	0	0	0	3	3
	Tourism & Leisure	3	2	4	0	9	3	12
	Transportation & Logistics	6	0	1	0	7	9	16
	<b>Total</b>	<b>19</b>	<b>11</b>	<b>8</b>	<b>0</b>	<b>38</b>	<b>44</b>	<b>82</b>
Technology								
8	Electronic Components	6	2	0	0	8	3	11
	Information & Communication Technology	11	6	1	0	18	7	25
	<b>Total</b>	<b>17</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>26</b>	<b>10</b>	<b>36</b>
	<b>Grand Total</b>	<b>157</b>	<b>71</b>	<b>33</b>	<b>25</b>	<b>286</b>	<b>295</b>	<b>581</b>

Source: The Stock Exchange of Thailand (SET), Thailand, 2011

In 2013, there are 507 public companies listed (excluding 95 medium-sized enterprise and 34 companies under rehabilitation) on the SET which fulfills the requirement of the Thailand law and regulations that covers eight industries. The eight industries consist of agro and food industry (42 companies), consumer products (39 companies), financials (57 companies), industrials (76 companies), property and construction (133 companies), resources (31 companies), services (92 companies), and technology (37 companies). Table 2.6 shows the number of public companies by industrial sector as of December 31, 2013.

Table 2.6  
*Number of Public Companies by Industrial Sector as of December 31, 2013*

No.	Market	Industry	Sector	Total PLC	Total per Industry
	Mai	MAI Industry	Medium-Sized Enterprise	95	95
	SET	-	Companies Under Rehabilitation	34	34
			<b>Total</b>	<b>129</b>	<b>129</b>
1	SET	Agro and Food Industry	Agribusiness	14	
	SET	Agro and Food Industry	Food & Beverage	28	42
2	SET	Consumer Products	Fashion	23	
	SET	Consumer Products	Home & Office Products	11	
	SET	Consumer Products	Personal Products & Pharmaceuticals	5	39
3	SET	Financials	Banking	11	
	SET	Financials	Finance & Securities	28	
	SET	Financials	Insurance	18	57
4	SET	Industrials	Automotive	16	
	SET	Industrials	Industrial Materials & Machinery	6	
	SET	Industrials	Packaging	14	
	SET	Industrials	Paper & Printing Materials	2	
	SET	Industrials	Petrochemicals & Chemicals	12	
	SET	Industrials	Steel	26	76

Table 2.6 (Continued)

No.	Market	Industry	Sector	Total PLC	Total per Industry
5	SET	Property and Construction	Construction Materials	19	
	SET	Property and Construction	Construction Services	19	
	SET	Property and Construction	Property Development	48	
	SET	Property and Construction	Property Fund and REITs	47	133
6	SET	Resources	Energy and Utilities	30	
	SET	Resources	Mining	1	31
7	SET	Services	Commerce	19	
	SET	Services	Health Care Services	15	
	SET	Services	Media and Publishing	27	
	SET	Services	Professional Services	2	
	SET	Services	Tourism and Leisure	12	
	SET	Services	Transportation and Logistics	17	92
8	SET	Technology	Electronic Components	11	
	SET	Technology	Information and Communication Technology	26	37
<b>Total</b>				<b>507</b>	<b>507</b>
<b>Grand Total</b>				<b>636</b>	<b>636</b>

Source: The Stock Exchange of Thailand (SET), Thailand, annual report, 2013

### 2.3 Customer Loyalty

Customer loyalty is an important element in determining the organisation's success and to sustain its competitive advantage for the service industry (Chen and Hu, 2010; Bodet, 2008; Lin and Wang, 2006; Pullman and Gross, 2004). Developing and increasing customer loyalty is beneficial in reducing the initial cost of introducing and attracting new customers and will increase the number and value of purchase (McMullan and Gilmore, 2009; Lovelock and Witz, 2007; Tsoukatos and Rand, 2006; Gerpott, Rams, and Schindler, 2001). It will also increase the company's profitability, growth, and performance (Duncan and Elliott, 2004; Kish, 2000) as

well as increasing the market share and higher rates of return on investment (Lam and Burton, 2006).

For decades researchers have tried to define customer loyalty. For example, Oliver (1997) defines customer loyalty as a strong commitment made by repeating a purchase or a service consistently in the future. Anderson and Srinivasan (2003) defined customer loyalty as the customer's positive attitude toward a business which results in a repeat of purchasing behavior. Pearson (1996) on the other hand, defined it as the mindset of a customer who holds favorable attitudes toward a company, commit to repurchase the company's service, and recommend the service to others. Lastly, Kotler and Armstrong (2004) define it as a positive attitude of a customer on a particular brand which results in a consistent repurchase behaviour.

Customer loyalty is used in this study as the theoretical thinking foundation to understand the basic concept of customer loyalty. There are two basic approaches to define customer loyalty; the stochastic and deterministic approach (Odin, Odin, and Valette-Florence, 2001). The stochastic approach defines customer loyalty as a behaviour manifested in customer's shares of purchase, purchasing frequency, repeat purchase, recommendations, repurchase intentions, and willingness to pay price premium (Sancharan, 2011; Sancharan, 2011; Lai and Chen, 2010; Clemes, Gan, Kao, and Choong, 2008; Yang and Peterson, 2004; Zeithaml, Berry, and Parasuraman, 1996; Fornell, 1992). The deterministic approach define customer loyalty as an attitude manifested through customers' preferences, buying intentions, supplier patronisation, and recommendation willingness (Kuo, Chang, Cheng, and Lai, 2011; Sancharan, 2011; Lai and Chen, 2010; Clemes et al., 2008; Xu,

Goedegebuure, and Heijden, 2006; Ribbink et al., 2004; Anderson and Srinivasan, 2003; Parasuraman and Grewal, 2000; Pearson, 1996; Zeithaml et al., 1996; Fornell, 1992). Both approaches have their advocates, it should be underlined that defining customer loyalty as merely a behaviour overcomes the fact that customers behaviours are not always a reflection their attitudes. Certain factors might cause customers to act loyal while their attitudes are negative or, at best, neutral towards a certain product or brand. Such factors could include the lack of worthy competition, customer's perceived risk of change and most seriously, customers' perceived lack of difference between competing brands. Therefore, any research conducted on customer loyalty should adopt a deterministic definition in order to clearly understand customers' real attitudes towards customer audit industry which could give more solid indicators towards customers' potential future behaviours towards audit industry customer service.

Most researchers used the second definition due to the fact that behavioural loyalty is difficult to observe and measure (Kuo et al., 2011; Lai and Chen, 2010). Thus, this study also uses the second definition of customer loyalty as an attitude as defined by Ribbink et al., 2004; Parasuraman and Grewal, 2000; and Zeithaml et al., 1996.

## **2.4 Service Quality**

The firm's ability to provide a high level quality of service is the important key to gain competitive advantages against its competitors. The definition of service quality revolves the identification and satisfaction of customer needs and requirements. Zeithaml, Parasuraman, and Berry (1990) however, defined that service quality is the extent of discrepancy between the customer expectations and their perceptions. The

American Customer Satisfaction Index (ACSI) defined it to which a service provides customer requirements and how the requirements are met (Fornell, Johnson, Anderson, Cha, and Bryant, 1996). Parasuraman, Zeithaml, and Berry (1985) argue that service quality can be defined as the difference between predicted, expected (customer expectations) and perceived service (customer perceptions).

In order for the customers to be satisfied, the customers' perceived performance of a service should be greater than the customers' expectation. The customers assessment of overall service quality is based on the gap between their expectations and perceptions of performance levels. Service quality is helpful for service firms to know the customer's perceptions of service quality in order to overcome their competitors and attract and retain customers.

#### **2.4.1 The SERVQUAL Instrument**

In the consumer behaviour theory, there are many service quality models and instruments developed for measuring service quality. SERVQUAL is the most commonly used instrument to measure service quality by comparing customers' expectations before their service and their perceptions of the after being served. SERVQUAL model is developed by Parasuraman, Zeithaml, and Berry, 1994, 1991, 1990, 1988, 1986, and 1985. The SERVQUAL instrument contains 22 items scale in order to measure the gap between perceived and expected service.

Based on the "expectancy-disconfirmation" model, Parasuraman et al., (1988) developed the SERVQUAL scale to assess the customers' perception of service quality and how the organization can improve their delivery of service quality. Five

dimensions of service quality were identified in SERVQUAL: tangibles, reliability, responsiveness, assurance, and empathy. Table 2.7 shows the definition of SERVQUAL's five dimensions.

Table 2.7  
*The Definition of SERVQUAL's Five Dimensions*

Dimension	Definition	Items in Scale
Tangibles	The appearance of physical facilities, equipment, personnel and communication materials.	4
Reliability	The ability to perform the promised service dependably and accurately	5
Responsiveness	The willingness to aid the customers need and to provide prompt service.	4
Assurance	The knowledge and courtesy of employees and their ability to convey trust and confidence	4
Empathy	The provision of giving individualised attention to customers.	5

Source: SERVQUAL Model, Parasuraman, Zeithaml and Berry, 1985

Previous studies in service marketing uses the SERVQUAL model to measure customer satisfactions as done by Naeem, Akram, and Saif, (2009). They studied the impact of service quality on customer satisfaction in Pakistan banking sector. The results revealed that service quality is a good predictor of customer satisfaction.

Mengi (2009) also used the SERVQUAL model to study the relationship between customer satisfaction and service quality in the public and private bank sector. The results found that customers of public sector banks are more satisfied with the service quality compared to private sector banks. A high level of customer satisfaction through service quality is important in gaining customer's trust and loyalty.

Anantadjaya, Walidin, and Nawangwulan (2007) studied the relationship between service quality on supply chain management and customer satisfaction in small and medium enterprises by using SERVQUAL model. Their study found that there is a connection between the service quality and customer satisfaction.

Wilson and Al-Zaabi (2006) used a modified SERVQUAL model to measure the perceived service quality and customer loyalty. They studied service quality and customer loyalty in United Arab Emirates (UAE) Islamic Banks. They found that high quality service results in customer loyalty.

Hutchinson, Li, and Bai (2005) applied the SERVQUAL instrument in the contexts of China's mobile communications industry. The dimensionality, reliability, and validity of the SERVQUAL instrument were assessed. Their research shows that the SERVQUAL instrument is a valid and valuable tool in measuring service quality. Service convenience is an important additional dimension of service quality in China's mobile communications setting. The dimension of empathy may need revision.

Heung, Wong, and Qu (2000) studied airport-restaurant service quality in Hong Kong. They used the SERVQUAL methodology and adapting it to the airport-restaurant environment and examined travelers' expectations and perceptions of the quality of the restaurants' service. This study analyse of the gap between perceptions and what travelers expected and desired to determine a measure of service adequacy (MSA) related to expectations and a measure of service superiority (MMS) related to whether travelers' desired service levels were exceeded. The results showed that the

Chinese restaurants achieved the highest MSA value by exceeding basic expectations for service, but all the restaurants had negative MMS values.

Many accounting researcher studied the relationship between service quality by using SERVQUAL model and customer satisfaction. Turk and Avoilar (2009) studied the effects of perceived service quality of audit firms on in the Istanbul Stock Exchange (ISE) listed companies by using modified 22 items SERVQUAL scale indicated that the SERVQUAL scales is reasonably satisfactory to measure perceived service quality of audit firms.

Aga and Safakli (2007) studied the quality of service and the satisfaction of customers in professional accounting firms in North Cyprus using the SERVQUAL model. They found that the SERVQUAL provides good measurement of service quality. The results indicated that service quality is the most important factor to customer satisfaction as it has a positive effect.

Ismail et al. (2006) studied the relationship between audit service quality, client satisfaction and loyalty in the context of audit firms in Malaysia. The SERVQUAL model is used to measure the perception and expectations of public listed companies on the services received from audit firms. They found that SERVQUAL is a reliable model in measuring customer satisfaction. It was also discovered that the customer satisfaction has a vital role in enhancing their loyalty. The satisfied audit client is important in developing a loyal client and mediates the relationship of audit service quality and client loyalty.

Saxby, Ehlen, and Koki (2004) studied service quality in Southern Indiana accounting firms by using SERVQUAL model confirm that service quality is positively related to clients' satisfaction. Weekes, Scott, and Tidwell (1996) also studied service quality and client satisfaction in Australia's accounting firms by using SERVQUAL model. This study found that SERVQUAL model is a good instrument to measure service quality in the professional business services.

Hong and Goo (2004) studied service quality, customer satisfaction, and customer loyalty in Taiwan accounting firms. This study found that SERVQUAL instrument is a good measurement of service quality and service quality is positively associated with customer satisfaction.

Caruana, Money, and Berthon (2000) studied service quality and satisfaction in audit firm. This study develops a model and hypotheses of the inter-relationships, identifies measures and seeks to test the model with a sample of customer of an audit firm. Instruments were identified and exploratory research is undertaken among customers of an audit firm to determine whether service quality affect to customer satisfaction. For research instrument, they make use of the perception items in SERVQUAL to measure service quality. The result shows service quality is correlated with customer satisfaction.

In this study, perceived service quality is defined as the extent to which a firm successfully serves the purpose of customers (Zeithaml et al., 1990; Parasuraman et al., 1988). Hence, to measure perceived service quality, this study used SERVQUAL instrument since SERVQUAL instrument is widely used to measure service quality

especially in an audit firm (Turk and Avoilar, 2009; Aga and Safakli, 2007; Ismail et al., 2006; Saxby, Ehlen and Koki, 2004; Caruana, Money and Berthon, 2000; Weekes, Scott, and Tidwell, 1996).

## 2.5 Customer Satisfaction

In order to be a successful organisation, organisation's musts look into the needs and demands of their customers. Customer satisfaction is the individual's perception of the performance of the service in relation to the customer expectation (Rust, Zahorik, and Keiningham, 1996). Figure 2.1 below shows the linkage of the gap between perceived quality and expected quality.

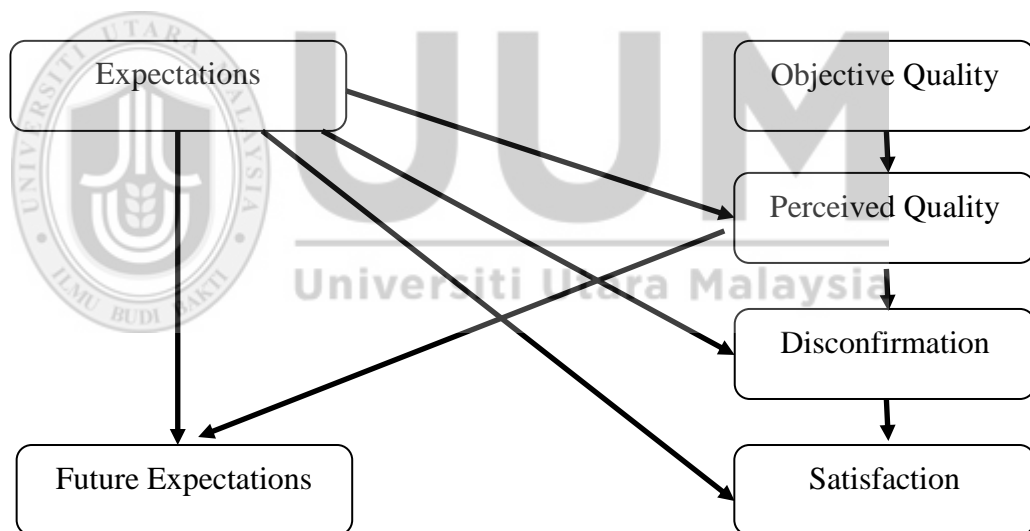


Figure 2.1  
*Satisfaction Process*  
 Source: Rust, Zahorik, and Keiningham, 1996

Satisfaction is an emotional reaction (Westbrook, 2000; Westbrook, Newman, and Taylor, 1978) which includes surprise, pleasure, contentment, or relief. Customer satisfaction can be gained by the quality of service (Kotler and Keller, 2006) which affects the customer satisfaction and in turn will affect customer loyalty.

Many researchers have defined customer satisfaction in various ways. Oliver (1997) defined customer satisfaction as the customer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provides a pleasurable level of consumption related fulfillment. Kotler and Armstrong (2004) and Kotler (2000) defined customer satisfaction as emotions of pleasure or disappointment resulting from perceived performance in relation to their expectation. Hoyer and MacInnis (2001) defined customer satisfaction as a customer feeling of acceptance, happiness, relief, excitement, and delight.

Increasing customer satisfaction can get higher future profitability and lower costs related to service (Tutton, 2007) and increased customer loyalty (Gustafsson and Johnson, 2002). Customer satisfaction decreases customer complaints and increase loyalty, increase repurchase intentions, and lead to better financial performance (Babakus, Bientstock, and Scotter, 2004; Ittner and Larcker, 1998; Fornell, 1992). The quest for profitability is essential to any organisation. Customer satisfaction is a factor that greatly affects the organisational profits as well as service quality (Parasuraman et al., 1988). Perceived high levels of service quality can increase customer satisfaction, customer trust and customer loyalty which will potentially generate or increases revenue for the organisation (Zeithaml et al., 1996).

This study defined customer satisfaction as the clients judgment that a feature, or service, provides a pleasurable level of consumption related fulfillment, including levels of under or over fulfillment as defined by Oliver (1997).

## 2.6 Customer Trust

Customer trust is widely used in relationship marketing research over the last decade (Brashear, Boles, Bellenger, and Brooks, 2003; Morgan and Hunt, 1994; Moorman, Deshpande, and Zaltman, 1993). Improvement perceived service quality was positive and significantly affects trust (Hsu, 2007; Ribbink et al., 2004; Pavlou, 2003; Gefen, Karahanna, and Straub, 2003; Doney and Cannon, 1997). Customer trust can attract new customer and retain existing customer (Hsu, 2007; Ribbink et al., 2004; Pavlou, 2003; Gefen et al., 2003). Trust is beneficial for both audit firms and customers; audit firms benefit through inflation of revenues, costs reduction, positive verbal evidence and employee retention. While the customers can benefit through a reduction of risk towards the service provider and through social benefits derived from a trusting service provider (Moorman, Deshpande, and Zaltman, 1993). Trust is required to build a long lasting relationship between the business and their client, which will then create loyalty (Thompson and Thomson, 2003). This could also result in higher organisational profitability (Thompson, 2009). Therefore, audit firm should strive to gain and receive customers' trust. This can be achieved by providing a high quality service to satisfy customers through staff and acting to build customers' confidence in the audit firm and its service.

Many researchers have explained customer trust in numerous ways. According to Thomson (2009) a customer trust is an expectancy of positive outcomes that one can receive based on the expected action of another party. Hadjikhani and Thilenius (2005); Moorman et al. (1993) defined customer trust as the willingness of the exchange partner to rely on the other party in whom the former party has confidence.

Other researchers have defined trust in terms of opportunistic behaviour (Dwyer, Schur, and Oh, 1987), shared values (Morgan and Hunt, 1994), mutual goals (Wilson, 1995), uncertainty (Crosby, Kenneth, and Deborah, 1990), actions with positive outcomes (Anderson and Narus, 1984), making and keeping promises (Bitner, 1995) and the belief that a partner's promise is reliable and party will fulfill their obligations in the relationship (Schurr and Ozanne, 1985). Shpetiem (2012), Ribbink et al. (2004), Pavlou (2003) and Gefen et al. (2003) defined customer trust as a belief that the service provider will deliver as promised and belief that the service provider is acting in the best interest of the customer.

Yap, Ramayah, and Shahidan (2012) defined trust as a belief that a provider of service will deliver as promised (credibility trust) and they acting in the best interests of the customers and will not take advantage of the relationship (benevolence trust). Walter, Thilo, and Helfert (2002) defined customer trust as the customer's faith in the supplier's kindness, honesty and competence to act in their best interest.

Trust is a vital factor that affects the relationship between customer satisfaction and loyalty. Trust is influence customers loyalty through their perception of equivalence in values with the service provider (Vuuren, Roberts-Lombard, and Tonder, 2012; Du Plessis, 2010; Chen and Xie, 2007; Aydin and Ozer, 2005).

Throughout this study, customer trust is defined as the customer belief that the service provided will deliver as promised and the customer belief that the service provider is acting in the best interests of the customer as defined by Shpetiem (2012); Ribbink et al., (2004); Pavlou (2003); and Gefenet al., (2003).

## **2.7 Previous Literatures on Relationship among Service Quality, Customer Satisfaction, Customer Trust, and Customer Loyalty**

### **2.7.1 Previous Studies on Service Quality and Customer Loyalty**

Gaining a customer loyalty is a difficult task in today's competitive marketplace. A major driver of customer loyalty is a service quality (Oliver, 1997). Previous studies have shown that there is a positive correlation between service quality and customer loyalty (Sumaedi, Bakti, and Metasari, 2012; Shpetiem, 2012; Coelho and Henseler, 2012; Lu and Guo, 2007).

Bakti and Sumaedi (2012) investigate the connection between service quality and customer loyalty in a public university library service in Indonesia. The data is collected from undergraduate students that have used the library service through a questionnaire. A structural equation modeling technique was used to analyse the data and the results revealed that service quality positively and significantly affects customer loyalty.

Shpetiem (2012) studied service quality and its association with customer loyalty in retail customers in Albania. This study collected data from students at two different universities in Albania throughout the first four months of 2012. The items of service quality were adopted from SERVQUAL and customer loyalty measures were mainly based on qualitative studies by Parasuraman and Grewal (2000). The study found that high level of service quality lead to higher levels of customer loyalty.

Coelho and Henseler (2012) examined the relationship between service quality and customer loyalty. The data were collected from banking and cable TV customers in Western European Country. The study found that the quality of service is an important predictor of client loyalty.

Lu et al. (2007) studied the parallel between service quality and customer loyalty in the foreign supermarkets in China. The study found that service quality is a factor influencing customer loyalty.

Hence, customer loyalty is an important benchmark of success for any industry relating with services. It is important to develop a potent strategy in retaining and attracting potential customer for organisation. This can be achieved by developing customer loyalty as it generally attributes to satisfaction. Customer loyalty is a strong commitment to make many repeated purchases of use a service consistently in the future.

### **2.7.2 Previous Studies on Service Quality and Customer Satisfaction**

Customer satisfaction is a feeling which results from customers' evaluation of their purchase decision with their need and wants (Armstrong and Kotler, 2003). Kotler and Keller (2006) and Oliver (1997) researched shows that service quality is correlated with customer satisfaction.

Many marketing researcher studied the correlation between service quality and customer satisfaction. Tsuji, Bennett, and Zhang (2007) examined the relationships between service quality and customer satisfaction at a well-known sport event. The

results indicated that core service quality and peripheral service quality are the significant predictors of satisfaction.

Saravanan and Rao (2007) examined the service quality issues in an Indian automobile service industry through the customer's perspective. They studied the overall service quality of the automobiles service stations in India with respect to the critical factors of service quality. This studied investigated the discrimination between the three groups of overall service quality with respect to the critical factors of service quality. The results concluded that both the technological factors and the people oriented factor contributed more in discriminating the three groups of overall service quality.

Yoo and Park (2007) provide a research framework that examines significance between perceived service quality and customers satisfaction. This research shows how the organisation can enhance their service quality to increase customer satisfaction. The results show that employee training has an influence on perceived service quality. Employee plays a critical role in enhancing perceived service quality with shared understanding.

Cameran, Moizer, and Pettinicchio (2010) studied the client's level of satisfaction and service quality in professional service industries in Italian companies. The data collected from audit firms in Italian companies by using questionnaire and sending to financial executives of leading companies. The results show that, the most important variable explaining customer satisfaction was the service quality of the audit firm.

Others studies on service quality in Thailand includes Saha and Thingy (2009) who studied the significance of service quality and customer satisfaction in Thailand low-cost airline. The study found that service quality is a significant determinant of customer satisfaction. Leelataypin, Maluesri, and Punnakitikashem (2011) studied service quality of public hospital in Bangkok by using SERVQUAL model. The result showed that the public hospital currently cannot deliver service quality in all the five dimensions namely tangible, reliability, responsiveness, assurance, and empathy.

Dhatsiwat (2009) studied public service quality: definition, measurement and its application in the Thai Public Service by using SERVQUAL to measure the service delivery performance of Thailand agencies. The studied found service quality has significant important to customer satisfaction.

Service quality is an important antecedent in fostering customer satisfaction, as it can affect a client's commitment in continuing their bond with the organisation (Ndubisi, Malhotra, and Chan, 2009). As mentioned in the above literature, the relationship between service quality and customer satisfaction is widely observed in many service related industries including audit service. However, the service quality and customer satisfaction in Thailand firms has not been yet studied. For these reasons, this study measures customer satisfaction by customer evaluating perceived quality of service. Customer perceived quality of service is measure through recent service experiences from their audit firm

### **2.7.3 Previous Studies on Service Quality and Customer Trust**

Service quality plays a major role in affecting customer trust. Perceived service quality was proven to be a positive and significantly factor that affects customer trust. Customer trust is required to build a long term relationship with business, which will then result in higher profitability (Thompson, 2009).

Previous researcher who studied the connection between service quality and customer trust for example Shpetiem (2012), collected data from retail customers in Albania. Their study found that service quality has a definite effect on customer trust.

Coelho and Henseler (2012) conducted a study examining the link between service quality and customer trust in the context of banking and cable TV customers in Western European country. This study found that service quality is a good measurement of customer trust.

Ribbink et al. (2004) also examined service quality and its association with customer trust. The data was collected from various online book and CD store in Europe. The study concluded that service quality positive influences customer trust.

Customer trust is an important element of customer perceptions about company and beneficial for company through inflation in sales, the reduction of operational fee, positive verbal communication and employee retention (Brashear et al., 2003; Morgan and Hunt, 1994; Moorman et al., 1993). Singh and Sirdeshmukh, 2000 also found that customer trust is important for maintaining a long lasting relationship between company and customer. Service quality is a major driver of customer trust.

#### **2.7.4 Previous Studies on Customer Satisfaction and Customer Loyalty**

Customer satisfaction is the necessary basis for the firm in retaining the current customers (Guo, Xiao, and Tang, 2009). High customer satisfaction can generate customer loyalty (Hsin and Hsin-Wei, 2011; Li-Wei, 2011; Tianxiang and Chunlin 2010; Kotler and Keller, 2006; Shankar, Amy, Smith, and Rangaswamy, 2003).

Previous marketing researcher conducted a study examining the link between customer satisfaction and customer loyalty. Vuuren, Roberts-Lombard, and Tonder (2012) for example conducted this study focusing an optometric practice in South Africa. The sample includes 357 patients who have visited the practice more than twice in a time span of the past six years. The study used a structured questionnaire with a five-point Linkert scale to aggregate the data. They found a strong link exists between customer satisfaction and customer loyalty.

Khan (2012) investigated the impact of customer satisfaction on customer loyalty. The samples of this study are the students of different universities of Pakistan by using questionnaire. The questionnaires were distributed through electronic mail and self-administered. A five Likert scale were used to compute the impact of customer satisfaction on customer loyalty. The outcome revealed that customer satisfaction has a significant impact on customer loyalty.

Lu et al. (2007) studied the dissimilarity in elements that affect customer satisfaction and faith towards local and the foreign supermarkets in China. The study found that they exist a difference in elements influencing consumer satisfaction and loyalty with

regards to native or non-native supermarkets. Post-purchase service showed a greater satisfaction for non-native supermarkets and in-store goods also have a bigger effect upon loyalty.

#### **2.7.5 Previous Studies on Customer Trust and Customer Loyalty**

Customer trust plays a major factor in explaining customer loyalty (Kim and Han, 2008). To obtain the customer's loyalty, a company must first obtain their trust (Reichheld and Schefter, 2000). Previous researcher studied the association between customer trust and customer loyalty. Vuuren, Roberts-Lombard, and Tonder (2012) also conducted a similar research in the context of optometric practice in South Africa. The data were gathered in 2011 using a questionnaire with a five-point Likert scale. The results showed that customer trust influence on customer loyalty.

Yap, Ramayah, and Shahidan (2012) studied customer trust and its relation with customer loyalty. This study collected data from banking customers in Malaysia and discovered that customer trust has a positive influence on customer loyalty.

Shpetiem (2012) examined the impact customer trust on customer loyalty by collecting data through questionnaire to the retail customers in Albania. The study found that customer trust has a positive in influence on customer loyalty.

Seto-Pamies (2012) wrote a dissertation about customer trust and its association with customer loyalty focusing in retail travel agency in Spain. The study concluded that customer trust has a positive influence on customer loyalty.

Kassim and Abdullah (2010) also studied customer trust and its effect on customer loyalty. This study collected data from e-commerce service industry in Malaysia and Qatar. The study discovered that customer trust has a notable impact on customer loyalty. The same research was also conducted by Ribbink et al. (2004) centering on online book and CD store in Europe. The researchers found that customer trust has a positive and directly influence customer loyalty.

Customer trust and customer loyalty are essential for building and maintaining a long term relationship (Singh and Sirdeshmukh, 2000). Previous study found that customer trust directly affects customer loyalty (Yieh, Chiau, and Chiu, 2007; Ribbink et al., 2004). To gain a high level of customer trust, the companies need to develop a service offered by the company to match the expectation of the customer. Customer trust and customer loyalty gives companies a competitive advantage and can increase a company's income (Seto-Pamies, 2012).

#### **2.7.6 Previous Studies on Service Quality, Customer Satisfaction, and Customer Loyalty**

Service quality and customer satisfaction were regarded as relevant factors that could affect customer loyalty. A high quality service affects the customer satisfaction which may lead to an increased in customer loyalty, high revenue gained and an increased in the market share of business (Rootman, 2006).

Chodzaza and Gombachika (2013) studied the association between service quality, customer satisfaction and customer loyalty in the context of a public electricity utility organization in Malawi. The data were collected from industrial customers with a

minimum power consumption of 50kVA by using questionnaires. This study consists of three variables which are service quality which act as an independent variable, customer satisfaction as a mediator and customer loyalty as the dependent variable. All the items were measured on a seven-point Likert scale (1 strongly disagree to 7 strongly agree). The score less than 4 is a negative rating and the score above 4 means a positive rating. The study found a very strong correlation between the three variables. An association between service quality and customer loyalty were discovered revealing that these variables are partially mediated by customer satisfaction under the following conditions; 1) service quality is significantly correlated with customer satisfaction. 2) the quality of service has a significant relationship with customer loyalty in the absence of customer satisfaction; 3) customer satisfaction is significantly associated with customer loyalty; 4) when service quality and customer satisfaction are controlled, a previously significant relationship between service quality and customer loyalty is no longer significant or it is significantly decreased.

Cheng and Rashid (2013) studied the correlation between service quality, customer satisfaction and customer loyalty in the Malaysian Hotel Industry. This study examined the influence of service quality on customer satisfaction and the effect of customer satisfaction on customer loyalty. The result showed a positive relationship between service quality, customer satisfaction and loyalty in the Malaysian hotel industry. Findings also confirmed that the service quality has a vital role in influencing judgment or the customer's behaviour towards the superiority of a service. They also confirmed that satisfied hotel guests have higher tendency to

become loyal customers and a loyal customer is a much valued asset to an organisation.

Bakti and Sumaedi (2012) studied the relationship between service quality, customer satisfaction, and customer loyalty in a public university library service in Indonesia. They found that service quality has a direct effect on customer satisfaction and customer satisfaction direct effect to customer loyalty. In other words, the service quality influences customer loyalty indirectly via customer satisfaction.

Bedi (2010) studied service quality, customer satisfaction and customer loyalty in India banking industry. This study found that service quality has an impact on customer satisfaction and customer satisfaction has an impact on customer loyalty.

Trasorras, Weinstein, and Abratt (2009) examined satisfaction and loyalty in professional services. Their study collected the data from professional service providers and users in the Tampa Bay, Florida (USA). The variables in this study are service quality, customer satisfaction and customer loyalty. The scale used to measured quality of service developed by Teas (1993). The scale used to measure satisfaction was obtained from the study by Eggert and Ulaga (2002). The scale used to measured loyalty was developed by Zeithaml, Berry, and Parasuraman, (1996). The results show that a highly significant relationship existed between service quality and customer satisfaction, and customer satisfaction on customer loyalty.

The correlations between customer service quality, satisfaction, and loyalty is also use in management accounting. It is used to balance scorecard to test the link

between non-financial, such as customer satisfaction and loyalty to measure financial outcome. Balanced scorecard is a popular performance measurement system that uses multiple measures (Kaplan and Norton, 1996 and 1992). Firm implementation of a balance scorecard first starts by selecting financial and non-financial measures through a four hierarchical perspectives such as learning and growth, internal business processes, customer, and financial. The lowest level in the hierarchy is the learning and growth perspective because actions taken there, such as training employees, affect outcomes of the other perspectives at a future date. The financial perspective is considered the highest-level perspective.

Liang and Hou (2007) studied a dynamic connection of balanced scorecard applied for the hotel. This study found that customer satisfaction measured the financial performance. The excellent facilities increases the level the customer feels satisfied. An increasing rate of satisfaction felt by the customer will leads to an increasing customer's loyalty rate and will finally generates an increased in revenues and margins.

Bryant, Jones, and Widener (2004) investigated the relations that exist among multiple performance measures in determining how they provide information about the firm's loyalty through the use of a series of framework. The framework uses the balanced scorecard performance measurement system mixing in financial and non-financial measures. A multiplex presentation of the balanced scorecard allows the result of each perspective to influence the outcome of a higher-level perspective. This study also found that the performance measurement system lessen many relations within the partially mediated model. Specifically, they found that there was

a positive correlation between financial outcomes and both customer satisfaction and customer loyalty.

Reheul, Caneghem, and Verbruggen (2013) examined the relationship between service quality, customer satisfaction and customer loyalty; evidence from Belgian Non-Profits (audit firms). They examined the relationship between perceived service quality and customer satisfaction with the auditor and customer satisfaction and customer loyalty towards the auditor. The data were collected from non-profits organizations in Belgian by using questionnaire mailing to the chair of the Board of Directors personally with post-paid and self-addressed return envelope. This study found that overall results were indicative of a high degree of customer satisfaction with and customer loyalty towards the auditor. For the Big-Four audit firms, this study found that customer satisfaction is significantly negative relationship to customer loyalty.

Ismail et al. (2006) studied the relationship between audit service quality, customer satisfaction and loyalty to the audit firms in Malaysia. The studied found that client satisfaction is mediates between audit service quality and client loyalty.

The previous studies results showed that service quality and customer satisfaction are an important factors that influence on customer loyalty (Reheul, Caneghem, and Verbruggen, 2013; Ismail et al., 2006). To be competitive advantage, the business needs to develop strategies and procedures in place to ensure the degree which the service offered by the business matches the expectation of the customer.

### **2.7.7 Previous Studies on Service Quality, Customer Trust, and Customer Loyalty**

Higher levels of service quality and customer trust are related to higher level of customer loyalty and higher organisational profitability. Trust is an important factor in affecting relationship between service quality and customer loyalty. If customer trusts a business that, customer is a positive buying loyalty towards the business. Service providers act in a way that builds customer trust and trust influence loyalty by affecting the customer's perception of service provider.

Many marketing researcher study the relationship among service quality, customer trust, and customer loyalty. Madjid (2013) explored and test the role of customer satisfaction as a mediator of relationship between customer trust and customer loyalty by using Structural Equation Modeling (SEM) with Partial Least Square analysis (PLS). The results showed that customer satisfaction and trust has positive and significant influence on customer loyalty. Customer trust partially mediates between customer satisfaction and customer loyalty.

Ndubisi (2007) studied the relationship between service quality, customer trust and customer loyalty for bank customers in Malaysia. This study found that trust is an important mediator between service quality and customer loyalty.

The previous studies results showed that service quality significantly enhances customer trust and customer loyalty (Madjid, 2013; Ndubisi, 2007). Customer trust has a positive and significant impact on customer loyalty. Trust is an important element of customer perception of service providers and benefit to business through

reduced costs, increased sales, positive word-of-mouth and employee retention (Moorman et al., 1993).

#### **2.7.8 Previous Studies on Service Quality, Customer Satisfaction, Customer Trust and Customer Loyalty**

Service quality, customer satisfaction, customer trust and customer loyalty are important validity on service industry performance. As discussed in the previous studies among service quality, customer satisfaction, customer trust, and customer loyalty (Shpetiem, 2012; Seto-Pamies, 2012). Shpetiem (2012) study the relationships among service quality, customer satisfaction, customer trust, and customer loyalty among retail customers in Albania during the first quarter of 2012. This study found that: Firstly, service quality is positively influence customer satisfaction, customer trust, and customer loyalty. Secondly, customer satisfaction positively influences customer trust and customer loyalty. Finally, customer trust positively influences customer loyalty.

Seto-Pamies (2012) examined the relationship between service quality, customer satisfaction, customer trust, and customer loyalty in the service industry. The data collected from the retail travel agency sector in the North-East of Spain by using the questionnaire with seven-point Likert scale. For measuring service quality, this study chose the SERVQUAL scale. The results show that service quality is an excellent predictor of customer satisfaction. This study also found customer satisfaction has a considerable influence on customer loyalty and customer trust in the service provider influences the customer loyalty.

Vuuren, Roberts-Lombard, and Tonder (2012) examined customer satisfaction and customer trust as predictors of customer loyalty within an optometric practice environment. This study develops the independent variables of customer satisfaction and customer trust on customer loyalty within an optometric practice in South Africa. The population comprised of the patients of an optometric practice who had visited the practice twice or more within the past six years by using a convenience sampling technique. A structured questionnaire used a five-point Likerts scale to gather the data. The results showed that all independent variables (customer satisfaction and customer trust) had a significant positive influence on the dependent variable (customer loyalty). Customer satisfaction had the largest influence on customer loyalty when compared to trust.

Yap, Ramayah, and Shahidan (2012) studied service quality had a positive effect on customer satisfaction, customer satisfaction had a positive effect on customer trust and customer loyalty and customer trust had a positive effect on customer loyalty. This study collected data from bank customers in Malaysia by using questionnaire. The study found that service quality has a positive effect on customer satisfaction; customer satisfaction has a positive effect on customer trust and customer loyalty. Finally, customer trust has a positive influence on loyalty to the bank.

Seto-Pamies (2012) studied customer loyalty to service providers; examining the role of service quality, customer satisfaction and trust in travel agencies in Spain. The study found that service quality is a predictor of customer satisfaction and customer satisfaction has an impact to customer loyalty. He also found that customer satisfaction is necessary for creating customer loyalty.

Shpetiem (2012) studied the relationships among service quality, satisfaction, trust, and store loyalty among retail customers in Albania. This study collected the data from students at two universities in Albania during the first quarter 2012 and using a structural equation modeling (SEM) to evaluate the hypotheses testing on the relationships among model constructs. The study found that high service quality has a significant impact on customers' satisfaction, trust and loyalty and also found that satisfaction positively influences trust and loyalty, and trust positively influences loyalty. The results in this study were useful to understand the relationship between service quality and consumer behaviour factors such as satisfaction, trust, and loyalty.

Coelho and Henseler (2012) studied high perceived service quality is an effective instrument for achieving higher customer satisfaction, customer trust and customer loyalty. This study collected data from banking and cable TV customers in Western European Country. The study found that service quality is an important predictor of customer satisfaction, customer trust and customer loyalty.

Kassim and Abdullah (2010) examined the relationship between perceived service quality, customer satisfaction, customer trust and customer loyalty in e-commerce service in Malaysia and Qatar. The study found that service quality had a significant impact on customer satisfaction and customer satisfaction had a significant impact on customer trust. The study also found that both customer satisfaction and customer trust have significant effect on customer loyalty.

Akbar and Parvez (2009) studied the impact of service quality, trust, and customer satisfaction on customer loyalty in private telecommunication company operating in Bangladesh. This study collected the data from subscriber/customers of a major private telecommunication company operating in Bangladesh. To measure all the variables in this study, they used five-point Likert scale. Service quality was measured by using 21 items developed by Zeithaml et al. (1996). Trust has been measure by using 5 items adapted from Morgan and Hunt (1994). Customer satisfaction has been measure by using 3 items adopted from the American Customer Satisfaction Index study by Feick and Lee (2001). The study found that customer satisfaction is an important mediator between perceived service quality and customer loyalty and the results of the study indicate that trust and customer satisfaction are significantly and positively related to customer loyalty.

Ribbink et al. (2004) studied service quality, customer satisfaction, customer trust, and customer loyalty on online customers. The data were collected from actual customers of an online book and CD store by using electronic questionnaire via internet to university students and recent graduates in Europe. This study uses a seven-point Likert scale to measure all the variables. They found that e-service quality, e-trust, and e-satisfaction, positively and directly influences e-loyalty. This study also found that the e-service quality influences customer loyalty via e-trust and e-satisfaction.

Customer loyalty is important in service marketing as it serves as a prediction of customer decision making. Loyalty represents a willingness of the customer to make an investment in order to strengthen a relationship. Therefore, high service quality

will significantly impact customers' satisfaction, customer trust, and customer loyalty.

## **2.8 Underpinning Theory**

### **2.8.1 Consumer Behavioural Theory**

Consumer behaviour has been a fundamental root in the marketing strategy since 1950s. The definition of consumer behaviour is defined as an attitude a consumer's displayed in purchasing, using, evaluating and disposing of products and services that they expect will satisfy their needs (Schiffman and Kink, 2004). The American Marketing Association defined it as the impact and cognition, the behaviour and environment through which people carry out transactions in their life (Bennett, 1995).

Kotler and Amstrong (2008), consumer behaviour refers to the buyer behaviour of final consumers-individuals and households who buy goods and services for personal consumption. Customer buys goods and services to satisfy needs and wants. However, each individual is different in terms of age, gender, occupations and taste. This is why consumer behaviour is so difficult to understand and to study (Kotler and Armstrong, 2010).

Kumra (2007) explains that, consumer behaviour involves the use and disposal of products or service as well as the study of how they are purchased. This means understanding that consumer's behaviour process is the perspective from the what, when, where, how, from, whom and how often to purchase goods and services. The

study of consumer behaviour is how consumer makes decisions to spend its resources (time, money and effort) in various consumption places (Nair, 2009).

Solomon, Marshall and Stuart (2009) defined consumer behaviour as the process of individuals or groups who go through to select, purchase, use and dispose of service to satisfy their needs and desires. In other words, it involves the thoughts and feelings people experience and the actions they perform in the consumption process (Peter and Olson, 2010). Thus, consumer behaviour process includes attitudes, intention and attentions. Affection and cognition are components of attitudes. Consumer have attitudes toward products or services such as for example Johny Andrian Salon has the best or quick service for hairdo, and whether Wall-Mart offers low price but great products. Affection refers to consumers' feelings, emotions, and moods such as whether they like or dislike a product or service whereas cognition refers to consumers' thinking, such as their beliefs about a particular product or service (Peter and Olson, 2010). Affection and cognition are important issues to customer satisfaction such as feeling pleased, liking the product or service, and knowing why customer like the product or service.

### **2.8.2 Characteristics Affecting Consumer Behaviour**

Characteristics affecting consumer behaviour can be classify in four categories (Kotler and Armstrong, 2008).

- (1) Cultural
- (2) Social
- (3) Personal
- (4) Psychological

Each of these factors can influence consumer behaviour in each purchase. According to Kotler and Armstrong, (2008) marketers cannot change the importance, of these factors. However, they can take them into account to understand customer's purchases.

### **(1) Cultural Factors**

Cultural factors refer to the people belonging to groups such as nationality, race, location and social class. This belonging influences each consumer's purchase. For instance, the Asians still have different aspirations from the Europeans. (Doyle and Stern, 2006)

### **(2) Social Factors**

Social factors are inspired by reference groups, family and roles and status. A reference group is any person or group which has a direct or indirect influence on individual's behaviour. This is because it serves as a point of comparison for its members. Each group has a set of norms and values which is respected by everyone who wants to belong to this group. Reference group concept is a big opportunity for marketers to understand the consequences of group life and the impact on an individual's belief, judgment, and attitude (Kumra, 2007).

### **(3) Personal Factors**

Personal factors refer to each person being different by its age, gender, and taste. These factors influence the consumer all the time during its purchases. Kotler and Armstrong (2008) suggest that people change the goods and services they buy over their lifetime. Tastes in food or clothes are often age related. Occupations also affect

the intention of purchase. When people do sport or some do-it yourself, they need special clothes and equipment. Life style is a person's pattern of living as expressed in his or her psychographics.

#### (4) Psychological Factors

Psychological factors are represented by motivation, perception, learning and attitude. Maslow (1943) uses this hierarchy of human needs to explain why people are driven by particular needs at particular time. People try to satisfy the first need not fulfilled, starting from the bottom of the pyramid. This model can explain the term of motivation, which refers to subconscious motivations. Most of the time, consumers do not know why or cannot explain why they act as they do (Kotler and Armstrong, 2008).

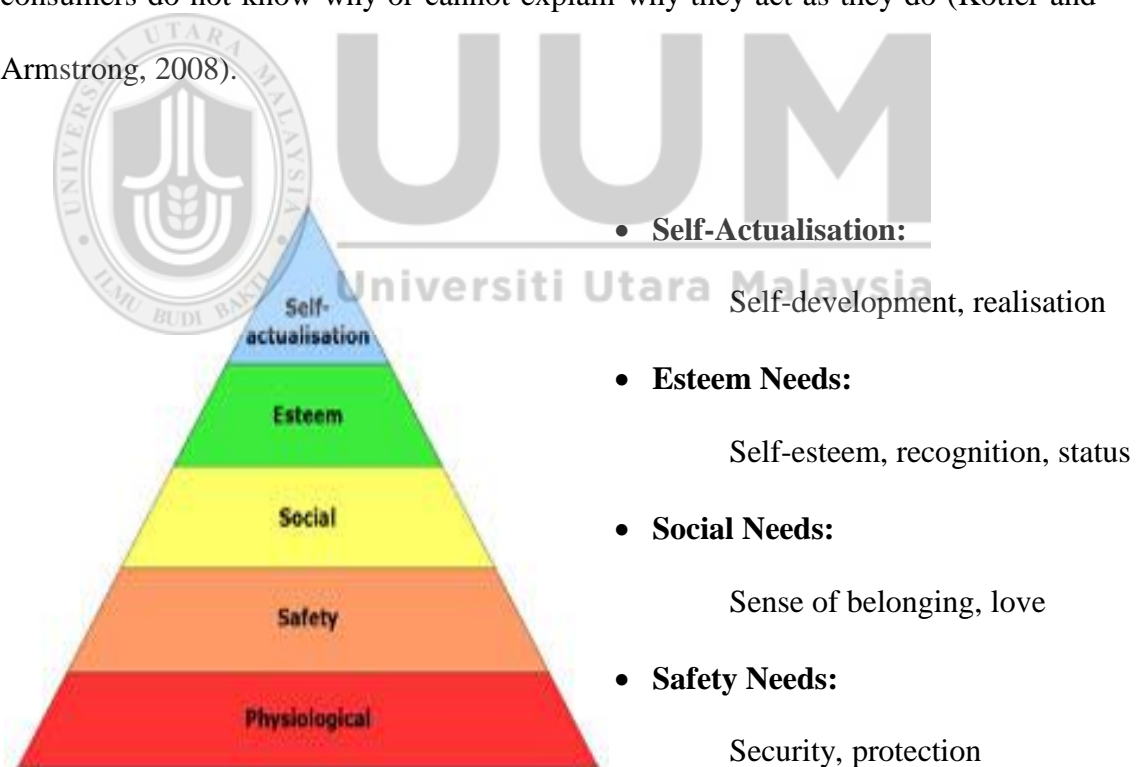


Figure 2.2  
*Maslow's Hierarchy*  
Source: Kotler and Armstrong, 2010

### 2.8.3 Characteristics of Consumer Need

Consumer need can be explained in several characteristics such as motivation, people, perception, learning, and belief (Kumra, 2007). Needs cannot be created or manipulated by marketers. Need exists before the marketer and within the customer. Needs are never fully satisfied however temporary. They come back and change with time and environment. For instance, people have not the same needs at each meal. They can also observe that new needs arrive when old needs are satisfied. Consumer has multiple needs at the same time. Money that they use to satisfy a need means less money to another need. Finally, they can conclude that the independence between needs and wants. Needs pre-exist wants which lead to a demand.

- **Motivation**

Motivation is a process that starts when customer has needs that he wants to satisfy. It creates both physiological and psychological tension and discomfort. This is satisfied through the purchase and use of products and services (Kumra, 2007).

- **Perception**

Perception is the process by which people select, organise, and interpret information to form a meaningful picture of the world from three perceptual processes: selective attention, selective distortion and selective retention.

- Selective attention is the tendency for people to screen out most of the information they are exposed.
- Selective distortion means the tendency for people to interpret information in a way that will support what they already believe.

- Selective retention refers to the tendency to remember good points made about a brand and forget good points about competing brands (Kotler and Armstrong, 2008).

The first impression is the last one. When you introduce a new product without testing it and that customers have a bad impression about it, any product improvement could change the negative view that the consumer already has (Kumra, 2007).

- **Learning**

Learning changes individual behaviour according to the past experiences. Past purchase experiences influence future purchases. For instance if a customers have been disappointed by a product or brand, they would not buy it anymore (Kotler and Armstrong, 2010). Learning is a process that evolves with knowledge, and experience. Knowledge is considered as the acquisition and processing of information available through an exchange between customers and company.

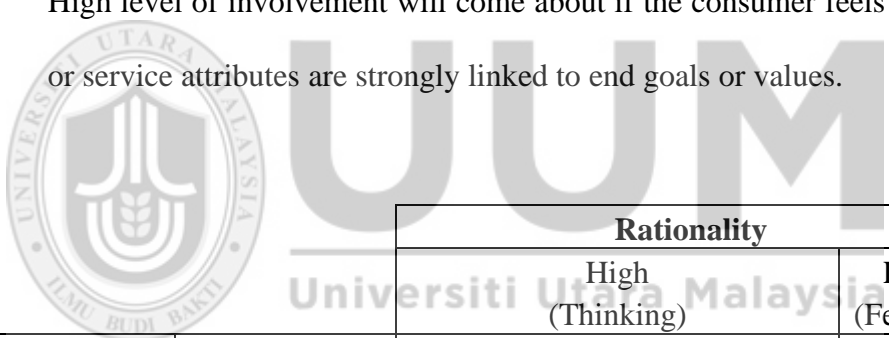
- **Belief**

Belief is a descriptive thought that a person has about something based on knowledge, opinion and faith. Attitude describes a person's relatively consistent evaluations, feelings, and tendencies toward an object or idea. All this characteristics affect consumer behaviour with more or less strength. It depends of environment, time of day and each person (Kotler and Armstrong, 2010).

#### 2.8.4 Types of Consumer Buying Behaviours

Consumer decision making varies with the type of buying decision. Complex and expensive purchases are likely to involve more buyer deliberation and more participants. Involvement is the perceived importance or personal relevance of an object or event. It is about the degree to which the consumer feels attached to the product or service, and the loyalty felt towards it. Involvement has both cognitive and affective elements; it plays on both the brain and the emotions. There are three levels of involvement:

- (1) Low level of involvement occurs if attributes are irrelevant to consequences.
- (2) Medium level of involvement occurs if the attributes only link to function.
- (3) High level of involvement will come about if the consumer feels that product or service attributes are strongly linked to end goals or values.



		Rationality	
		High (Thinking)	Low (Feeling)
Degree of Involvement	High	Extensive problem solving	Image
	Medium	Limited problem solving	Sensual
	Low	Routine	Impulse

Figure 2.3  
*Type of Consumer Buying Behaviour*  
Source: Doyle and Stern, 2006

Figure 2.3 shows the type of consumer buying behaviour. There are:

- Rationality is based on the perceived functionality of the product or service by consumer.
- Extensive problem solving concerns a product or service which is expensive and a risky decision to take for the customer. It means that this purchase is infrequent and the consumer needs information about it to be sure that it is not a loss of time and money. They need for reassurance by testing the product or service, for instance.
- Limited problem solving concerns a familiar product category or service for the consumer. They have already bought the same or similar product or service in the past.
- Routine concerns product or service that the consumer buys very frequently indeed every day. They have little consideration for the purchase.
- Image means that the consumer sees the product or service as reflecting status or personality.
- Sensual means that the consumer desires the product or service for pleasure not for its features or its functionalities
- Impulse means that the consumer buys the production without forethought. They can switch brand (Doyle and Stern, 2006).

### **2.8.5 Buyer Decision Making Process**

According to Kotler and Armstrong (2010), buyer decision making process follows these different stages:

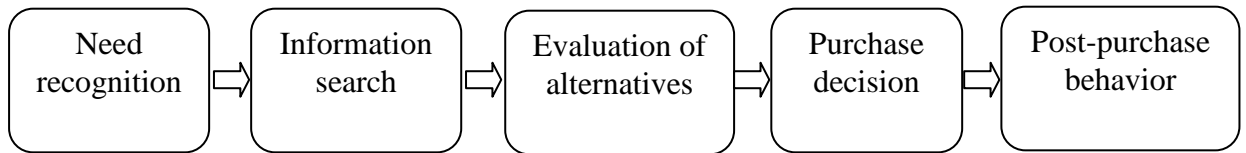


Figure 2.4

*Buyer Decision Making Process*

Source: Kotler and Armstrong, 2010

- Need recognition: It means that the consumer feels a need or a lack of something.
- Information search: Consumer wants information and details about the desired product or service. These details can be provided by personal selling or labels in shop stores.
- Evaluation of alternatives: Customer often has the choice between several products or services. With provided information, they can choose the best alternative for them in function of the quality product or service, the price or both.
- Purchase decision: Customer chooses which brand they have the intention to buy. However, two factors involve between the purchase intention and the purchase decision: attitude of others and unexpected situational factors. Attitude of others refers to somebody close to the customers recommends to buy this product or service rather than the other one. Unexpected situational factors are the contrary of expected factors such as expected price or expected product or service benefit. However, events may change the purchase decision such as sales promotion. This refer to unexpected situational factors (Kotler and Armstrong, 2010)
- Post purchase behaviour: It refers whether customer is satisfied after its purchase. Customer delight is one of the most important things in marketing because it allows customer loyalty. It means that the consumer feeling after the purchase is as

important as the consumer behaviour during the purchase. A cognitive dissonance refers to a buyer discomfort caused by post purchase conflict (Kotler and Armstrong, 2010). Post purchase satisfaction or dissatisfaction is linked with the perception of product performance and quality including brand name, price, features and so on. Consumer engages a constant process to evaluate its purchases by integrating the products or services into their daily consumption activities (Solomon, Bamossy, Askegaard & Hogg, 2010).

#### **2.8.6 Previous Studies on Consumer Behaviour**

The researches concerning consumer behaviour has a tendency to use behavioural and attitudinal approaches (Chaudhuri and Holbrook, 2001; Lee and Cunningham, 2001). The behavioural approach focuses on market share, the fixation on brands, limited purchases, elasticity, and price (Rundle-Thiele and Mackay, 2001), while the attitudinal approach on the other hand tend to center on attitudes towards satisfaction, loyalty, brand fondness, fixation or attitude toward the brand, and of purchase. Both behavioural and attitudinal approaches are often been criticized by numerous researchers (Lee and Cunningham, 2001; Odin, Odin, and Valeette-Florence, 2001; Bloemer, Ruyter, and Peeters, 1998; Bloemer and Kasper, 1995).

This study mainly focuses on the service industry. Studies on customer satisfaction relating to this industry are still in the developing stage (Bloemer, Ruyter, and Wetzels, 1999). This approach is seen to be more reliable for service industries given the difficulties in obtaining behavioural data, and the attitudinal approach lends itself to a survey style methodology (Rundle-Thiele and Mackay, 2001).

Few researches have investigated the outcomes of overall satisfaction. A notable association was noted between satisfaction and loyalty behaviours (Szymanski and Henard, 2001; Yoon and Kim, 2000; Athanassopoulos, 2000). McQuitty, Finn, and Wiley (2000) argued that there was a positive link to satisfaction levels, and a negative link towards the chances of switching behaviour.

Yu and Dean (2001) on the other hand used a satisfaction emotion scale which was derived from a scale unfolded by Liljander and Strandvik (1997). They have established a noteworthy relationship between positive motions and oral communications, the inclinations in spending and switching behaviours. However, a connection between satisfactory emotions with customer's complaining behaviour was incapable to be established by the researchers. This causes an issue that the satisfaction emotions developed by Liljander and Strandvik (1997) is insufficient in providing a bigger picture of the satisfaction emotion domain, or satisfaction is not related to complain behaviour (Oliver, 1999).

Researches focusing on feelings of satisfaction and the attitude of consumer stipulated that positive emotions often results in positive outcomes and vice versa, in which negative emotions will result in negative outcomes (Babin and Babin, 2001; Machleit and Mantel, 2001). Others research shows that negative emotions have a bigger impact compared to positive emotions especially on post-choice evaluation (Inman, Dyer, and Jia, 1997). These conflicting research outcomes are due to the different types of emotions being measured in both studies. Inman et al. (1997) focuses on the feelings of remorse against euphoria, and disappointment verses rejoice. Yu and Dean (2001) on the other hand choose to study on happiness,

hopeful, positively surprised, angry, depressed, guilt and embarrassment. The negative emotions in Yu and Dean (2001) study were undependable with behavioural intentions dimensions when compared to the positive emotion dimension.

The theoretical framework capability in explaining satisfaction is still incomplete; however, the likelihood that a future framework is able to explain a wider scope of behavioural intentions should not be rejected or ignored. Remorse and dismay could hold such promise; such as Inman et al. (1997) has linked remorse to switching behaviour and dismay to complain, and negative oral communication (Inman and Zeelenberg, 2002; Zeelenberg, Van-Dijk, and Manstead, 2000; Zeelenberg and Pieters, 1999).

In addition, Zeelenberg, and Pieters (1999) have provided considerable support on the view that other negative emotions are experienced during or after the service encountered. They are not directly linked to the decision-making process, and considering consumer behavioural intentions which involve significant decision making. Particularly in repurchasing decisions, the inclusion of regret and disappointment may enhance the framework's ability to explain consumer complaining behaviour.

## **2.9 Summary of Literatures**

In a competitive environment, a firm is able to provide a high service quality if they wish to have a competitive advantage against their competitors. Customer loyalty is seen as the factor that plays a vital role in the future, and it will be used as a guide to increase the firm's profitability. Customer loyalty affects the company positively as

it drives companies to upgrade or maintain their image, avoids customer turnover, and to improve their awareness and particularity towards the needs of customer. This action will prevent customers from switching to other firms, and can improve business relationships with their customers.

Table 2.8 shows the summary of literature review that is related to service quality, customer's satisfaction, trust, and loyalty.



Table 2.8

*Summary of Literature Review*

No	Year	Author	IV	Moderator/ Mediator	DV	Industry	Location	Result
1	1996	Weekes, Scott, & Tidwell	Service Quality (SERVQUAL)	-	Customer Satisfaction	Accounting Firm	Australia	SERVQUAL provide a useful instrument for the measurement of customer satisfaction. Customer satisfaction is affected positively by the service quality.
2	2000	Heung, Wong, & Qu	Service Quality (SERVQUAL)	-	Customer Satisfaction	Airport Restaurant	Hong Kong	Customer satisfaction is affected positively by the service quality
3	2000	Caruana, Money,& Berthon	Service Quality (SERVQUAL)		Customer Satisfaction	Audit Firm	UK	Service quality direct link to customer satisfaction.
4	2004	Saxby, Ehlen,& Koski	Service Quality (SERVQUAL)	-	Customer Satisfaction,	Accounting Firm	Southern Indiana	Customer satisfaction is affected positively by the service quality
5	2005	Hutchinson, Li,&Bai	Service Quality (SERVQUAL)	-	Customer Satisfaction	Mobile Communications	China	Service quality has a positive relationship towards customer satisfaction.
6	2007	Aga & Safakli	Service Quality (SERVQUAL)		Customer Satisfaction	Accounting Firm	North Cyprus	SERVQUAL provide good measurement of service quality. Service quality has a positive relationship towards customer satisfaction.
7	2007	Yoo & Park	Perceived Service Quality		Customer Satisfaction	Hotel	Korea	Perceived service quality significant to customer satisfaction.
8	2007	Tsuji, Benett, & Zhang	Service Quality		Customer Satisfaction	Sport Industry	Cleveland, Ohio	Core service quality and peripheral service quality to be significant predictors of satisfaction.
9	2007	Saravanan & Rao	Service Quality		Customer Satisfaction	Automobile Service Industry	India	Overall service quality influence customer satisfaction.

Table 2.8 (continued)

No	Year	Author	IV	Moderator/ Mediator	DV	Industry	Location	Result
10	2007	Lu, Guo,& An	Service Quality	-	Customer Satisfaction, Customer Loyalty &	Foreign Supermarket	China	Service quality influence to customer satisfaction and impact to customer loyalty.
11	2009	Dhatsiwat	Service Quality		Customer Satisfaction	Public Service	Thailand	Service quality is significant drivers of customer satisfaction
12	2009	Saha & Thingy	Service Quality		Customer Satisfaction	Low-cost Airline (LCCs)	Thailand	Passenger satisfaction with service quality.
13	2009	Turk & Avoilar	Service Quality (SERVQUAL)		Customer Satisfaction	Audit Firm	Turkey	Perceived service quality has significant positive direct effect on customer satisfaction.
14	2009	Naeem, Akram,&Saif	Service Quality (SERVQUAL)	-	Customer Satisfaction	Bank	Pakistan	Service quality was proved to be a strong predictor of customer satisfaction.
15	2010	Cameran, Moizer,& Pettinicchio	Service Quality		Customer Satisfaction	Professional Service Industry	Italy	Service quality was significant drivers of customer satisfaction.
16	2011	Leelataypin, Maluesr,i& Punnakitikashem	Service Quality		Customer Satisfaction	Public Hospital	Thailand	Service quality in four dimensions namely, reliability, responsiveness, assurance and empathy was significant drivers of customer satisfaction.
17	1996	Hallowell	Customer Satisfaction		Customer Loyalty	Retail Banking	USA	Customer satisfaction relationship to customer loyalty.
18	2012	Khan	Customer Satisfaction		Customer Loyalty	Student of University	Pakistan	Customer satisfaction has a significant impact on customer loyalty.
19	1999	Garbarino & Johnson	Customer Satisfaction		Customer Trust	Theater Company	New York City	A strong relationship customers, actor satisfaction is the main driver of customer trust.

Table 2.8 (continued)

No	Year	Author	IV	Moderator/ Mediator	DV	Industry	Location	Result
20	2002	Walter, Thilo, & Helfert	Customer Satisfaction		Customer Trust	Customer supplier relationship	Germany	Customer satisfaction was significantly related to customer trust.
21	2012	Vuuren, Roberts-Lombard, & Tonder	Customer Satisfaction, Customer Trust		Customer Loyalty	Optometric Practice	South Africa	Customer satisfaction and customer trust have a significant positive influence on the customer loyalty. Customer satisfaction had the largest influence on customer loyalty when compared to customer trust.
22	2004	Hong & Goo	Service Quality (SERVQUAL)	Customer Satisfaction	Customer Loyalty	Accounting Firm	Taiwan	SERVQUAL instrument provides good measurement of service quality. Service quality was significantly related to customer satisfaction. Customer satisfaction on customer loyalty is positive and significant. Customer satisfaction and customer loyalty relationship is weaker than the relationship between service quality and customer satisfaction.
23	2006	Ismail, Haron, Ibrahim, & Isa	Audit Service Quality (SERVQUAL)	Client Satisfaction	Client Loyalty	Audit Firms	Malaysia	Customer satisfaction act as a mediator of service quality To customer loyalty.
24	2007	Tantakasem and Lee	Service Quality	Customer Satisfaction	Customer Loyalty	Banking	Thailand	Service quality is relationship to customer satisfaction. The customer satisfaction is impact on customer loyalty.
25	2009	Mengi	Service Quality (SERVQUAL)	Customer Satisfaction	Customer Loyalty	Public & Private Bank	India	Service quality is positive and significant to customer satisfaction. Improved customer satisfaction through SERVQUAL would result in a positive to customer loyalty.
26	2009	Trasorras, Weinstein,& Abratt	Service Quality	Customer Satisfaction	Customer Loyalty	Tampa Bay	Florida USA	A highly significant relationship between service and customer satisfaction. A significant relationship between customer satisfaction on customer loyalty.

Table 2.8 (continued)

No	Year	Author	IV	Moderator/ Mediator	DV	Industry	Location	Result
27	2010	Bedi	Service Quality	Customer Satisfaction	Customer Loyalty	Banking	India	Service quality has an important on customer satisfaction and customer satisfaction has an impact on customer loyalty.
28	2012	Bakti & Sumaedi	Service Quality	Customer Satisfaction	Customer Loyalty	Public University Library Service	Indonesia	Service quality has an important on customer satisfaction and customer satisfaction has an impact on customer loyalty.
29	2012	Reheul, Caneghem,& Verbruggen	Service Quality	Customer Satisfaction	Customer Loyalty	Audit Firm	Belgian	Service quality has positive influence on customer satisfaction customer loyalty. High degree of satisfaction with and loyalty towards the auditor.
30	2013	Chodzaza & Gombachika	Service Quality	Customer Satisfaction	Customer Loyalty	Public Electricity Utility	Malawi	The relationship between service quality and customer loyalty is partially mediated by customer satisfaction.
31	2013	Cheng & Rashid	Service Quality	Customer Satisfaction	Customer Loyalty	Hotel Industry	Malaysia	A positive relationship between service quality, customer satisfaction and customer loyalty.
32	2013	Majid	Customer Satisfaction, Customer Trust	Customer Loyalty	Customer Loyalty	Bank Rakyat Indonesia (BRI) Southeast Sulawesi	Indonesia	Customer satisfaction and trust has positive and significant influence customer loyalty.
			Customer Satisfaction, Customer Trust	Customer Trust	Customer Loyalty	BRI Southeast Sulawesi	Indonesia	Customer trust is as a partial mediation link between customer satisfaction and customer loyalty.
33	2012	Yap, Ramayah,& Shahidan	Service Quality		Customer Satisfaction	Banking	Malaysia	Service quality has a positive effect on customer satisfaction.
			Customer Satisfaction		Customer Trust, Customer Loyalty	Banking	Malaysia	Customer satisfaction has a positive effect on customer trust and customer loyalty.
			Customer Trust		Customer Loyalty	Banking	Malaysia	Customer trust has a positive influence on customer loyalty.

Table 2.8 (continued)

No	Year	Author	IV	Moderator/ Mediator	DV	Industry	Location	Result
34	2012	Coelho & Henseler	Service Quality		Customer Satisfaction, Customer Trust, Customer Loyalty	Banking and Cable TV customers	Western European Country	Service quality is an important predictor of customer Satisfaction, customer trust and customer loyalty.
35	2012	Shpetiem	Service Quality		Customer Satisfaction, Customer Trust, Customer Loyalty	Retail customers	Albania	Service quality has a positive effect on customer satisfaction, customer trust and customer loyalty.
			Customer Satisfaction		Customer Trust, Customer Loyalty	Retail customers	Albania	Customer satisfaction has a positive effect on customer trust and customer loyalty.
			Customer Trust		Customer Loyalty	Retail customers	Albania	Customer trust has a positive influence on customer loyalty
36	2012	Seto-Pamies	Service Quality		Customer Satisfaction	Retail Travel Agency	Spain	Service quality has a positive effect on customer satisfaction.
			Customer Satisfaction		Customer Loyalty	Retail Travel Agency	Spain	Customer satisfaction has a positive effect on customer loyalty.
			Customer Trust		Customer Loyalty	Retail Travel Agency	Spain	Customer trust has a positive influence on customer loyalty.

Table 2.8 (continued)

No	Year	Author	IV	Moderator/ Mediator	DV	Industry	Location	Result
37	2009	Akbar & Parvez	Customer Satisfaction, Customer Trust		Customer Loyalty	Telecommunication Company	Bangladesh	Customer satisfaction and customer trust are significantly and positively related to customer loyalty.
			Service Quality	Customer Satisfaction	Customer Loyalty	Telecommunication Company	Bangladesh	Customer satisfaction is an important mediator between service quality and customer loyalty.
38	2010	Kassim & Abdullah	Service Quality (SERVQUAL)		Customer Satisfaction	e-Commerce Service Industry	Malaysia, Qatar	Service quality had a significant impact on customer satisfaction.
			Customer Satisfaction		Customer Trust, Customer Loyalty	e-Commerce Service Industry	Malaysia, Qatar	Customer satisfaction has a significant impact on customer trust.
			Customer Trust		Customer Loyalty	e-Commerce Service Industry	Malaysia, Qatar	Customer satisfaction has a significant effect on customer loyalty.
39	2004	Ribbink, van Riel, Lilijander, & Streukens	Customer Satisfaction		Customer Loyalty	Online book and CD store	Europe	Customer satisfaction, was positive and directly influences customer loyalty.
			Customer Trust		Customer Loyalty	Online book and CD store	Europe	Customer trust was positive and directly influences customer loyalty.
			Service Quality	Customer Satisfaction, Customer Trust	Customer Loyalty			Service quality influences customer loyalty via customer trust and customer satisfaction.

## **2.10 Chapter Summary**

This chapter provides an extensive literature review that is relevant to the topic of the relationships among service quality, customer satisfaction, customer trust, and customer loyalty in Thailand's audit firms. The overview of the audit industry and auditing in Thailand must be presented, followed by reviews of customer loyalty; service quality; customer satisfaction; customer trust; and previous literatures on relationship among service quality, customer satisfaction, customer trust, and customer loyalty. Finally, underpinning theory and the summary of literatures that relate to the relationship among service quality, customer satisfaction, customer trust, and customer loyalty are presented.



## **CHAPTER 3**

### **RESEARCH FRAMEWORK AND METHODOLOGY**

#### **3.0 Introduction**

This chapter describes the method and procedure used in conducting the study. The study aims to explore the relationships between service quality and customer loyalty; mediating effect of customer satisfaction and customer trust in Thailand's audit firms. This study sought to determine whether service quality will affect customer satisfaction, trust, and loyalty, or will customer satisfaction affect their loyalty, or will customer trust affects their loyalty. Furthermore, the study aims to determine the mediating affect customer satisfaction and customer trust have on the relationship between service quality and customer loyalty in Thailand's audit firms. This chapter is divided into eight sections which are the research framework, hypotheses development, methodology, operational definition, measurement of variables, method data analysis, hypotheses testing summary, and chapter summary.

#### **3.1 Research Framework**

This study was carried out to seek the relationship between service quality and customer loyalty; mediating effect of customer satisfaction and customer trust in Thailand's audit firms. The independent variable is the service quality. Customer satisfaction and customer trust acts as the mediating variable while customer loyalty is the dependent variable. The definition of each variables presented in the framework is discussed in the following sections.

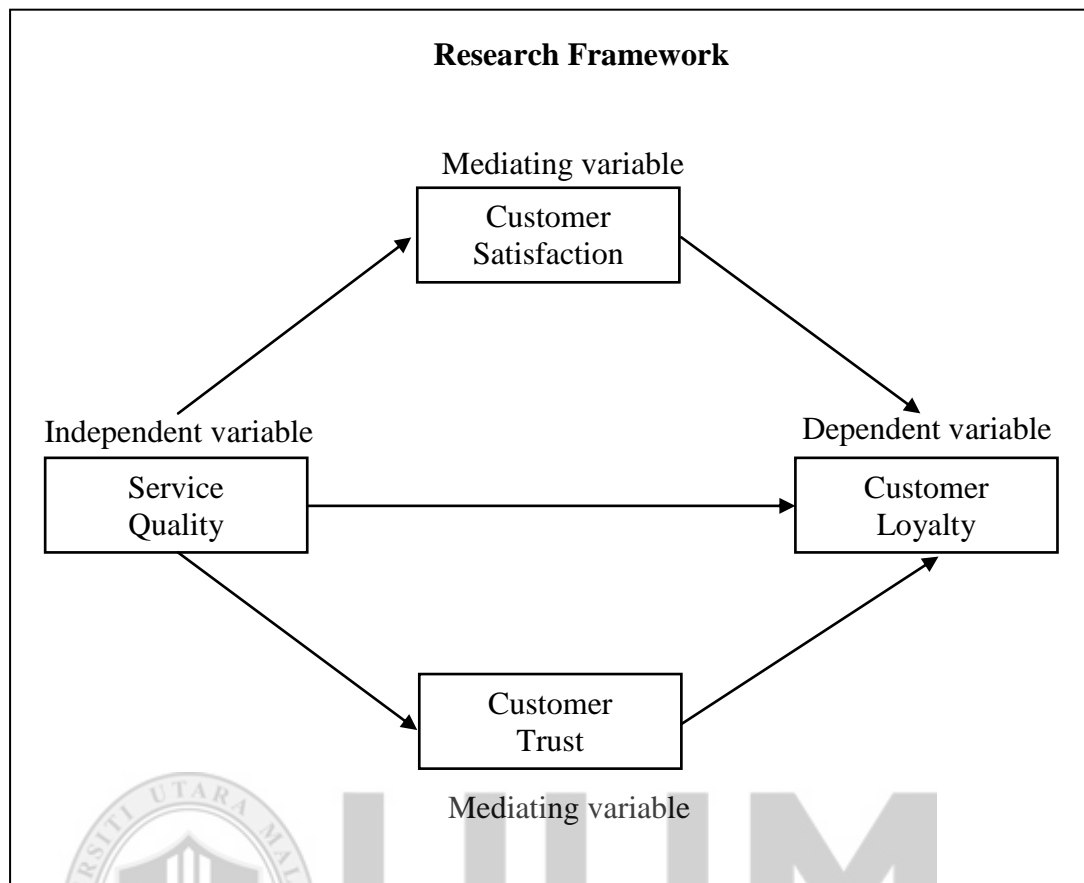


Figure 3.1  
*Research Framework*

The research model was constructed from the consumer behaviour theory in order to explain the association between the variables (service quality, customer satisfaction, trust, and loyalty). First, service quality is the client's assessment of the difference between expected service and perceived service (Parasuraman et al., 1985). To measure the service quality of audit firms, this study uses the SERVQUAL scale to assess customers' perception of service quality. Second, customer satisfaction is the customer perception of the performance of the service in relation to the customer expectation (Oliver, 1997). Third, customer trust is a belief that the service provider will deliver their service as promised and the service provider is acting with the best interests of the customers in mind (Shpetiem, 2012; Ribbink et al., 2004). Finally,

customer loyalty is the customer's attitude viewed by the repeat of purchasing behaviour and recommendation intention (Zeithaml et al., 1990).

In accordance with the literature, the developed research model is shown in Figure 3.1. Service quality, customer satisfaction, and customer trust play an important role towards influencing customer loyalty, while customer satisfaction and customer trust are mediate between service quality and customer loyalty.

### **3.2 Hypotheses Development**

Services are an intangible process, but it deals with the customers directly (Soteriou and Chase, 1998). Superior service quality is related to the increase of customer loyalty (Shpetiem, 2012), customer satisfaction (Brady and Robertson, 2001), and customer trust (Ribbink et al., 2004). Customer loyalty, customer satisfaction and customer trust are important roles for building and maintaining long-term relationship within the business.

In the research model, the perceived service quality of audit firms was measure by using 22 questions of SERVQUAL instrument adapted and modified from Parasuraman et al. (1988). Furthermore, the perceived service quality of the audit firm was hypothesized to directly affect the customer satisfaction, their trust level and loyalty.

In order to test the causal association of perceived service quality, customer satisfaction, trust, and loyalty three hypotheses were tested in this study. These were:

H<sub>1</sub>: Service quality has a positive effect on customer loyalty.

H<sub>2</sub>: Service quality has a positive effect on customer satisfaction.

H<sub>3</sub>: Service quality has a positive effect on customer trust.

In a fierce competitive environment, many firms are trying to improve and expand their customer satisfaction. Customer satisfaction is necessary to maintaining current and existing customers (Guo, Xiao, and Tang, 2009). According to, Ittner and Larcker (1998), service quality is positively related to customer satisfaction. Customer satisfaction is resulted by the service marketing activity, post-purchase behavior involving several inter-relationships within the consumption process. Churchill and Surprenant (1982) considered that the concept of customer satisfaction can be included directly in service marketing concepts, and this concept includes satisfying consumer demands while producing company profits. Customer satisfaction has a direct impact on customer loyalty (Vuuren, Roberts-Lombard, and Tonder, 2012; Khan, 2012). Customer loyalty can be obtained through customer satisfaction (Lai, Griffin and Babin, 2009). Thus, in view of the previous studies, the hypothesis is as follows:

H<sub>4</sub>: Customer satisfaction has a positive effect on customer loyalty.

The most effective way for a business to make their customer's believe in their working ethics is to provide them with great experience during the service transactions occur. If the customer's has already experienced the supplier's ability and their working ethics in fulfilling their client's needs and demand, the customer will likely have faith with the supplier (Helfert and Gemuenden, 1998). Customer

trust is a major clause in establishing a long term association with business (Gronroos, 1995; Morgan and Hunt, 1994). Customer trust is an important component in explaining loyalty (Chaudhuri and Holbrook, 2001; Morgan and Hunt, 1994; Moorman et al., 1993). Thus, in view of the previous studies, the hypothesis is as follows:

H<sub>5</sub>: Customer trust has a positive effect on customer loyalty.

Based on chapter 2, a two level analysis has been employed to draw causal inferences regarding the postulated relationship among the studied variables. First, the level investigated whether customer satisfaction has mediating relationship between service quality and customer loyalty. The second level investigated to see the effect of customer trust in mediating the relationship between service quality and customer loyalty. Thus, the hypotheses are developed as follows:

H<sub>6</sub>: Customer satisfaction mediates the relationship between service quality and customer loyalty.

H<sub>7</sub>: Customer trust mediates the relationship between service quality and customer loyalty.

The level of service quality, customer satisfaction and trust are related to customer loyalty positively. To measure customer satisfaction, firms can use the amount of repurchasing, word-of-mouth, and cross-buying. Customer trust, firms can measure through inflation in sales, the reduction of operational fee, positive verbal communication and employee retention. Customer satisfaction and trust help audit

firms to gain a competitive advantage, expand their market share and increase customer loyalty. This study assessed the pathway of relationships in a research structure. Better service quality should lead the customer to feel more satisfied and gain their trust and loyalty. Level of customer satisfaction and trust are hypothesis to affect between service quality and customer loyalty.

### **3.3 Methodology**

#### **3.3.1 Research Design**

The basic research design utilised for this study will be a survey design. The collection of data is accomplished through the use of a mail survey instrument (questionnaire). Questionnaires are frequently use in marketing and consumer research (Easterb-Smith, Thorpe, and Lowe, 1991). The questionnaires are sent to the president/director, accounting manager, or department head of finance and accounting department who act as an agent for their companies. Specifically, the aims of this study are: (1) to determine whether service quality will affect the customer satisfaction, trust, and loyalty in Thailand's audit firms; (2) to determine whether customer satisfaction will affect customer loyalty in Thailand's audit firms; (3) to determine whether customer trust will affect customer loyalty in Thailand's audit firms; (4) to determine the mediating affect customer satisfaction has between the service quality and client's loyalty in Thailand's audit firms; and (5) to determine the mediating affect customer trust has on the relationship between service quality and customer loyalty in Thailand's audit firms.

In summary, the research design for this study is a quantitative approach due to the fact that the research aims to find the relationships among the variables. The data was

collected by using a mail questionnaire. The details of the research design are shown as follows:

### **3.3.2 Sample and Data Collection**

#### **a. Population and Sample**

- **Population**

Based on the problem statement and objective, this study objective is to obtain an explanation of the causality relationship among service quality, customer satisfaction, trust, and loyalty through hypothesis testing. The population in this study consists of all the public companies listed on the SET as of December 31, 2013. The year 2013 was chosen due to the availability of the data and the current status of the data. They are 636 public companies listed. These companies use auditors under the Thailand (1962) law and regulations and are approved by the office of the SET in order to audit the Securities and Exchange Commission (SEC) registrants.

- **Sample**

The sample used in this study is 507 public companies listed (excluding 95 medium-sized enterprise and 34 companies under rehabilitation) in the SET as of December 31, 2013 that span all eight industries. There are: 1) Agro and Food Industry, 2) Consumer Products, 3) Financials, 4) Industrials, 5) Property and Construction, 6) Resources, 7) Services, and 8) Technology. The list of the companies was taken from the Stock Exchange of Thailand web-site. The number of companies by industrial sector is shown in Table 3.1 below:

Table 3.1

*Number of Public Sector Companies by Industrial Sector as of December 31, 2013*

No.	Market	Industry	Sector	Total PLC	Total per Industry
	Mai	MAI Industry	Medium-Sized Enterprise	95	95
	SET	-	Companies Under Rehabilitation	34	34
			<b>Total</b>	<b>129</b>	<b>129</b>
1	SET	Agro & Food Industry	Agribusiness	14	
	SET	Agro & Food Industry	Food & Beverage	28	42
2	SET	Consumer Products	Fashion	23	
	SET	Consumer Products	Home & Office Products	11	
	SET	Consumer Products	Personal Products & Pharmaceuticals	5	39
3	SET	Financials	Banking	11	
	SET	Financials	Finance & Securities	28	
	SET	Financials	Insurance	18	57
4	SET	Industrials	Automotive	16	
	SET	Industrials	Industrial Materials & Machinery	6	
	SET	Industrials	Packaging	14	
	SET	Industrials	Paper & Printing Materials	2	
	SET	Industrials	Petrochemicals & Chemicals	12	
	SET	Industrials	Steel	26	76
5	SET	Property & Construction	Construction Materials	19	
	SET	Property & Construction	Construction Services	19	
	SET	Property & Construction	Property Development	48	
	SET	Property & Construction	Property Fund & REITs	47	133
6	SET	Resources	Energy & Utilities	30	
	SET	Resources	Mining	1	31
7	SET	Services	Commerce	19	
	SET	Services	Health Care Services	15	
	SET	Services	Media & Publishing	27	
	SET	Services	Professional Services	2	
	SET	Services	Tourism & Leisure	12	
	SET	Services	Transportation & Logistics	17	92
8	SET	Technology	Electronic Components	11	
	SET	Technology	Information & Communication Technology	26	37
			<b>Total</b>	<b>507</b>	<b>507</b>
			<b>Grand Total</b>	<b>636</b>	<b>636</b>

Source: The Stock Exchange of Thailand (SET), Thailand, annual report (2014)

All the public companies listed on the SET should receive audit services from independent audit firms in Thailand. The audit firms operate under the Thailand (1962) law and regulations and approved by the Securities and Exchange Commission of Thailand.

As of December 31, 2013, there are 27 audit firms (145 auditors) related to the Securities and Exchange Commission and fulfill Thailand's registration requirement for audit firms. Under the law and regulations, an auditor must register with the Federation of Accounting Profession under the Royal Patronage of His Majesty the King and are approved by the Stock Exchange of Thailand in order to audit for the Securities and Exchange Commission registrants.

In this study, audit firms are divided into two groups: the Big-Four audit firms (4 firms/79 auditors) and Non Big-Four audit firms (23 firms/66 auditors). The list of audit firms were taken from the Securities and Exchange Commission web-site as shown in Table 3.2.

Table 3.2

*List of Audit Firms Approved by the Office of the Securities and Exchange Commission as of December 31, 2013*

No.	Firm	No of Auditor	%
Big-Four Audit Firms:			
1	E Y Office Co.,Ltd.	23	15.86
2	KPMG Phoomchai Audit Co.,Ltd.	26	17.93
3	Pricewaterhousecoopers ABAS Co.,Ltd.	19	13.10
4	Deloitte Touche Tohmatsu Jaiyos Audit Co.,Ltd.	11	7.59
<b>Total</b>		<b>79</b>	<b>54.48</b>
Non Big-Four Audit Firms:			
1	A.M.T. & Associates	4	2.76
2	ANS Audit co.,Ltd.	5	3.45
3	AST Master Co.,Ltd.	2	1.38
4	ASV & Associates Co.,Ltd.	2	1.38
5	Baker Tilly Audit and Advisory Services (Thailand) Co.,Ltd.	1	0.68
6	BDO Co.,Ltd.	2	1.38
7	BPR Audit and Advisory Co.,Ltd.	2	1.38
8	BunchikijCo.,Ltd.	2	1.38
9	C&A Accounting Fimr	2	1.38
10	D I A International Auditing Co.,Ltd.	5	3.45
11	Dhammini Auditing Co.,Ltd.	5	3.45
12	Dr. Virach and Associates Co.,Ltd.	3	2.07
13	Grant Thornton Co.,Ltd.	4	2.76
14	Karin Audit Co.,Ltd.	4	2.76
15	M.R. & Associates Co.,Ltd.	3	2.07
16	NPS Siam Audit Co.,Ltd.	2	1.38
17	Office of PitiseviCo.,Ltd.	2	1.38
18	PV Audit Co.,Ltd.	5	3.45
19	RSM Audit Services (Thailand) Co.,Ltd.	2	1.38
20	S.K. Accountant Services Co.,Ltd.	2	1.38
21	Sam Nak-Ngan A.M.C. Co.,Ltd.	3	2.07
22	SP Audit Co.,Ltd.	3	2.07
23	United AudtingCo.,Ltd.	1	0.68
<b>Total</b>		<b>66</b>	<b>45.52</b>
<b>Grand Total</b>		<b>145</b>	<b>100.00</b>

**Source:** The Securities and Exchange Commission (SEC), Thailand (2013)

### b. Sampling Technique

This study conducted in census by using all the public companies (507) listed as population for the year 2013.

### **c. Data Collection**

The data collection of this study used two types of data, that is, primary and secondary data. Primary data was collected by using mailed questionnaires and secondary reviews the literature related to investigate the results of previous researches that is relevant with the measurement used in this study.

The primary data collected are service quality, customer satisfaction, customer trust, and customer loyalty. This study gathered data from customers of audit firm in Thailand using the mailing instrument (questionnaire). The customers of audit firms were selected from companies registered under the SET for public listed companies as of December 31, 2013. The companies are selected from all industry sectors of 507 public listed companies on the Stock Exchange of Thailand.

Next, the questionnaires were mailed to the respondents. The respondents were asked to choose and stipulate their perception of the level of service quality, satisfaction, trust, and loyalty which were delivered by the audit firms with respect to each item on a seven point Likert scale.

### **d. Unit of Analysis**

The unit of analysis defined in this study is the organisation (public listed companies on the SET).

### **e. Respondents**

The respondents consisted of the president/director, accounting manager, or department head of finance and accounting department who act as an agent for their companies and play an important role in engaging auditors for the audit works.

#### **3.3.3 Research Instrument**

Prior to the questionnaire, the question from certain previous studies are adapted and modified for this study. Factors affecting service quality were adapted and modified from the original five dimensions of the SERVQUAL model (Parasuraman et al., 1988). Items for customer satisfaction was adapted from Oliver, 1980; while items for customer trust was adapted from Ribbink et al. (2004); Pavlou (2003); and Genfen, Karahanna, and Straub (2003), and customer loyalty was measured in qualitative studies by Zeithaml et al., (1990), Parasuraman and Grewal (2000), and Ribbink et al., (2004).

The seven-point Likert scale was used in measuring all the observed variables namely service quality, customer satisfaction, customer trust, and customer loyalty. Scales range from “1 = strongly disagree” until “7 = strongly agree”.

In addition, the original items were translated and modified into Thai language, and their content validity (wording and meaning) was checked carefully by three Thailand language experts. The questionnaire was originally in English but was translated into Thai language. Data collected from the questionnaire is divided into three sections:

### •Section 1: Personal Identification

Section one contains 5 questions (1 to 5) regarding the customer's information as seen in Table 3.3.

Table 3.3

#### *Items of Personal Identification*

- |     |                            |
|-----|----------------------------|
| (1) | Gender                     |
| (2) | Age                        |
| (3) | Education level            |
| (4) | Year of service experience |
| (5) | Position                   |

### •Section 2: Company Identification

Section two contains 4 questions (1 to 4) regarding the business information as shown in Table 3.4.

Table 3.4

#### *Items of Company Identification*

- |     |  |
|-----|--|
| (1) | What is the name of your audit firm?                         |
| (2) | What is your industry sector?                                |
| (3) | How long has your company been in operation?                 |
| (4) | How long has your company been receiving audit firm service? |

### •Section 3: Service Quality, Customer Satisfaction, Customer Trust and Customer Loyalty in Thailand's Audit Firms

Section three contain 39 questions to measure the respondent's perception regarding the quality of service (1 to 22), customer satisfaction (23 to 29), customer trust (30 to 34), and customer loyalty (35 to 39) offered by the audit firms. The details are as per Table 3.5, Table 3.6, Table 3.7 and Table 3.8.

Table 3.5

*Items to Measure Service Quality*

- 
- (1) My audit firm has up-to-date equipment.
  - (2) My audit firm's physical facilities are visually appealing.
  - (3) My audit firm's employees are well dressed and appear neat.
  - (4) The appearance of the physical facilities of my audit firm is in keeping with the type of services provided.
  - (5) When my audit firm promised to do something by a certain time, it does so.
  - (6) When I have a problem, my audit firm is sympathetic and reassuring.
  - (7) My audit firm is dependable.
  - (8) My audit firm provides the service at the time it promise to do so.
  - (9) My audit firm keeps its records accurately.
  - (10) Employees of my audit firm tell customers exactly when service will be performed.
  - (11) Employees of my audit firm give prompt service to customers.
  - (12) Employees of my audit firm are always willing to help customers.
  - (13) Employees of my audit firm are never too busy to respond to customer requests promptly.
  - (14) I can trust employees of my audit firm.
  - (15) I feel safe in my transactions with my audit firm's employees.
  - (16) Employees of my audit firm are polite.
  - (17) Employees get adequate support from my audit firm to do their jobs well.
  - (18) My audit firm gives me individual attention.
  - (19) My audit firm has operation hours convenient to my needs.
  - (20) Employees of my audit firm give me personal attention.
  - (21) My audit firm has my best interest at heart.
  - (22) Employees of my audit firm know what my need.
- 

Table 3.6

*Items to Measure Customer Satisfaction*

- 
- (23) I feel my audit firm's employees are willing to process my need.
  - (24) I feel that my audit firm's employees provide benefits to me.
  - (25) I feel that my audit firm always meet me expectations.
  - (26) I am satisfied with the service of my audit firm, compared to price.
  - (27) I feel that my audit fee is reasonable given the scope of the audit service.
  - (28) If people asked, I would strongly recommend my audit firm.
  - (29) Overall, I am satisfied with my audit firm.
- 

Table 3.7

*Items to Measure Customer Trust*

- 
- (30) I am sure that the staff of my audit firm act in my best interest.
  - (31) I am sure that my audit firm's personnel would do everything to satisfy me.
  - (32) I have great confidence in my audit firm's staff.
  - (33) I believe that the price/quality ratio offered by my audit firm is very reasonable.
  - (34) I consider myself trust to my audit firm.
-

Table 3.8

*Items to Measure Customer Loyalty*

---

(35)	I can highly recommend my audit firm to other people.
(36)	If I could decide again, I would choose my audit firm again.
(37)	I intend to continue using my audit firm.
(38)	I can identify myself with my audit firm.
(39)	I will prefer my audit firm above others.

---

The validity of the survey's initial content was evaluated by experts from academic and quality industry, who were asked to judge its relevancy, representatives, and the clarity of the items. They also provided suggestions in improving the questionnaire. Base on their feedback, modifications were made to enhance the clarity of the items. The revised questionnaire were further pilot tested on the customer of audit firm which included Big-Four audit firms and Non Big-Four audit firms (unlisted companies on The Stock Exchange of Thailand). The pilot test was done to obtained feedback and to verify its validity and the measurement scale.

### 3.3.4 Pilot Test

The instrument adapted to measure the collected data was firstly verified to determine its validity. It is necessary to re-validated the instrument used as different respondents and characteristic are used from the original studies (Hair, Black, Babin, Anderson, and Tatham, 2010; Sekaran, 2005).

Pilot test was conducted to test the instrument again. The questionnaire distributed are only limited to companies within Bangkok, Thailand. 30 questionnaires were distributed to the company limited in Thailand which received audit services from the audit firms under the Thailand (1962) law and regulations.

Pilot test was undertaken to assess the reliability of the attributes and to ensure that the wording of the questionnaire were understandable. Reliability analysis was applied to test the internal consistency of each of the perception attributes. The results show that the Cronbach's alpha coefficients for all the perception attributes, ranging from 0.929 to 0.982 is higher than the minimum point suggested by Sekaran and Bougie (2010), Nunnally and Bernstein (1994), and Nunnally (1978). The Cronbach's alpha coefficient above 0.70 was used as the minimum point and the value was decreased to 0.60 in the exploratory research (Hair et al., 2010). Table 3.9 shown results the test of reliability of constructs for pilot test.

Table 3.9  
*Reliability of Constructs for Pilot Test (n=30)*

No.	Variables	Cronbach's Alpha
1.	Service Quality	.982
2.	Customer Satisfaction	.933
3.	Customer Trust	.929
4.	Customer Loyalty	.957

### 3.4 Operational Definition

This study provides definitions of each construct and the literature as follows:

#### 3.4.1 Service Quality

Service quality is referred to the customer perception of service provided by the audit firms. If the customer has a higher expectation regarding the service, then the perceived quality is likely to be unsatisfactory and customer dissatisfaction will occur (Parasuraman et al., 1990).

### **3.4.2 Customer Satisfaction**

Customer satisfaction is referred to customer's fulfilling response. It is a judgment when a service feature is able to provide a pleasurable experience related to consumption fulfillment (Oliver, 1997).

### **3.4.3 Customer Trust**

Customer trust is referred to the belief that the service provider will deliver as promised and belief that the service provider is acting in the best interests of the customer (Shpetiem, 2012; Ribbink et al., 2004; Pavlou, 2003; Gefen et al. 2003).

### **3.4.4 Customer Loyalty**

Customer loyalty referred to the customer's attitude towards repurchasing behaviour and recommendation intention (Ribbink et al., 2004; Parasuraman and Grewal, 2000; Zeithaml, et al. 1996).



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## **3.5 Measurement of Variables**

### **3.5.1 Customer Loyalty**

Customer loyalty is the willingness of the customer in maintaining their relations with a service (Kim and Yoon, 2004). The customer loyalty is shown as the main feature in getting a continued competitive advantage (Lin and Wang, 2006). Customer loyalty can be measure by the repurchase intention and recommending the service to other (Kim and Yoon, 2004).

During the duration of this research, customer loyalty was measured by a five items scale modified from Parasuraman and Grewal (2000) such as the willingness to

recommend preferred service to other business, repurchase intention, resistance to switch to competitors' service that is superior to the preferred service, consistency in using the preferred service in the future and long term relationship with the current business. All items were measured on a seven point Likert scale, which ranges from (1) strongly disagree to (7) strongly agree.

### **3.5.2 Service Quality (SERVQUAL)**

The SERVQUAL instrument was chosen in measuring service quality due to the fact that it is the most well-known tool in measuring service quality. It is a scale developed to assess the perceptions of customer regarding the service quality in businesses (Parasuraman et al. 1988). The service quality is difficult to measure compared to the quality of product. SERVQUAL is a model started by Parasuraman et al. (1988), and is the most well-known model for calculating service quality. Parasuraman et al. (1986) defines perceived service quality as a global judgment, related to the superiority of the service. They linked the concept of service quality to the concepts of perceptions and expectations in this way: perceived quality is viewed as the degree and direction of discrepancy between consumers' perceptions and expectations. To measure the level of service quality delivered in audit firms, this study identified five factor of SERVQUAL instrument.

SERVQUAL instrument contains 22 pairs of Likert scale statements structured around five service quality dimensions, consisting of tangibles, reliability, responsiveness, assurance, and empathy (Cronin and Taylor, 1992). Each statement will appear twice. One statement measures the customer expectations of a particular service industry while another measures the perceived level of service provided. The

22 pairs of statements are designed to fit all dimensions of service quality. The Likert scale is commonly used in marketing research and varies according to the number of scale points (that is 7 or 9 point)(Grover and Vriens, 2006). A seven-point scale ranges from “(1) strongly disagree” to “(7) strongly agree” to accompany all the statements. The “strongly agree” end of scale will establish a relationship between high expectations and high perceptions (Vagias, 2006). Service quality occurs when expectation are met (or exceeded) and a service gap materialises if expectations are not met.

In order to test internal consistency of the 22 questions of service quality, Cronbatch’s coefficient,  $\alpha$  score for each dimension were computed. To test the validity of the 22 questions of service quality exploratory factor analysis are performed.

### **3.5.3 Customer Satisfaction**

To examine the customer satisfactions, Oliver (1980) developed the expectancy disconfirmation model. The model focuses on consumer satisfaction or dissatisfaction and balances it with their feelings of perceived performance of a service going against their expectation. In order for the consumers to be satisfied, the consumers’ perceived performance of a service should be greater than the consumers’ expectation.

The level of satisfaction measure in this studies used a seven-point scale ranging from “(1) strongly disagree” to “(7) strongly agree”.

### **3.5.4 Customer Trust**

Customer trust is important for building and maintaining long term relationship (Singh and Sirdeshmukh, 2000). Customer trust in this study is measured by using four items adapted from Ribbink et al. (2004); Pavlou (2003); and Genfen et al. (2003). All items were measured on a seven point Likert scale.

### **3.6 Method of Data Analysis**

The research design in this study uses the questionnaire approach. The Statistical Package for Social Science (SPSS) version 21 was used to analyse the questionnaire data. The respondents of all parts of the questionnaire were analysed using both descriptive and inferential analysis.

#### **3.6.1 Descriptive Analysis**

The descriptive analysis is to change the raw data into the form that is for researcher to understand and interpret (Zikmund, 2003). In this study, descriptive statistics was conducted to report the frequencies, mean scores, standard deviations, range of scores, skewness and kurtosis of the personal identification and company identification and normality tests. Respondents were asked to indicate their perception of service quality, customer satisfaction, customer trust, and customer loyalty by using a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

### **3.6.2 Inferential Analysis**

#### **a. Factor Analysis**

Factor analysis is used to test the factors for sample proportions. The main applications of factor analysis are (1) to reduce a large number of related variables to a more manageable number, prior to using them in other analyses such as multiple regression or multivariate analysis of variance and (2) to detect structure in the relationships between variables that is to classify variables (Sekaran, 2010). Therefore, factor analysis is applied in this study as a data reduction or structure detection method.

Factor analysis consists of two main approaches; exploratory and confirmatory. Exploratory factor analysis is used in the early stages of research to gather information about the interrelationships among a set of variables. Confirmatory factor analysis, on the other hand, is a more complex and sophisticated set of techniques used later in the research process to test specific hypotheses or theories concerning the structure underlying a set of variables.

The techniques of factor analysis are principal components analysis (PCA) and factor analysis (FA). Both attempt to produce a smaller number of linear combinations of the original variables in a way that captures most of the variability in the pattern of correlations. In the principal components analysis the original variables are transformed into a smaller set of linear combinations, with all of the variance in the variables being used. In this factor analysis, however, factors are estimated using a mathematical model, whereby only the shared variance is analysed (Tabachnick and Fidell, 2007).

## **b. Testing Reliability and Validity of the Instrument**

Reliability and validity are commonly used in quantitative research. Since reliability and validity are rooted in positivist perspective, then they should be redefined for their use in a naturalistic approach (Winter, 2000).

**Reliability:** Reliability is a concept used for testing or evaluating quantitative research. The reliability of a scale indicates how free it is from random error. In this study, the reliability of the instrument was tested using Cronbach's Alpha available through the SPSS version 21. Reliability analysis was conducted on the factors extracted using the recommendation of Hair et al. (2010). It is used to test the internal consistency of the measurement instruments.

**Validity:** Validity is the extent to which a scale or set of measures accurately represents the construct of interest. The main types of validity are content validity, criterion validity and construct validity. Content validity refers to the adequacy with which a measure or scale has sampled from the intended universe of domain of content. Criterion validity concerns the relationship between scale scores and some specified, measurable criterion. Construct validity involves testing a scale not against a single criterion but in terms of theoretically derived hypotheses concerning the nature of the underlying variable or construct. The construct validity is explored by investigating its relationship with other constructs, both related and unrelated (Streiner and Norman, 2008).

### **c. Correlation Analysis**

Correlation analysis is used to describe the strength and direction of the linear relationship between two variables. In this study, the procedure for obtaining and interpreting a Pearson product-moment correlation coefficient ( $r$ ) is presented along with Spearman Rank Order Correlation ( $\rho$ ). Pearson  $r$  is designed for interval level variables. It can also be used with one dichotomous variable. Spearman  $\rho$  is designed for use with ordinal level or ranked data and is particularly useful when the data does not meet the criteria for Pearson correlation.

Pearson correlation coefficients ( $r$ ) can take on values from -1 to +1. A perfect correlation of 1 or -1 indicates that the value of one variable can be determined exactly by knowing the value on the other variable. A scatterplot of this relationship would show a straight line. On the other hand, a correlation of 0 indicates no relationship between the two variables. A scatterplot would show a circle of points, with no pattern evident. However, multicollinearity may be a problem if a correlation between two independent variables is greater than .80 in the correlation matrix (Hair et al., 2007).

### **d. Multiple Regression Analysis**

Multiple regression analysis can be used to explore the relationship between one continuous dependent variable and a number of independent variables or predictors (Sekaran and Bougie, 2010; Aczel and Sounderpandian, 2006). Multiple regression is based on correlation, but allows a more sophisticated exploration of the interrelationship among a set of variables. Multiple regression can be used to address

a variety of research questions. It can tell researcher how well a set of variables is able to predict a particular outcome.

The three main types of multiple regression analyses are: standard or simultaneous, hierarchical or sequential and stepwise. In standard multiple regression, all the independent variable is evaluated in terms of its predictive power, over and above that offered by all the other independent variables. This is the most commonly used multiple regression analysis. In hierarchical multiple regression, the independent variable are entered into the equation in the order specified by the researcher based on theoretical grounds. Variables or sets of variables are entered in steps with each independent variable after the previous variables have been controlled. In stepwise multiple regression, the researcher provides a list of independent variables and then allows the program to select which variables it will enter and in which order they go into the equation, based on a set of statistical criteria. There are three different versions of this approach: forward selection, backward deletion and stepwise regression.

In this study, hierarchical multiple regression is used to determine the mediating affect customer satisfaction and customer trust have on the relationship between service quality and customer loyalty in Thailand's audit firms.

#### **e. Testing Mediator**

Mediators explain how external physical events have an effect on the internal psychological significance. The basic causal chain involve as a mediator is displayed in Figure 3.2.

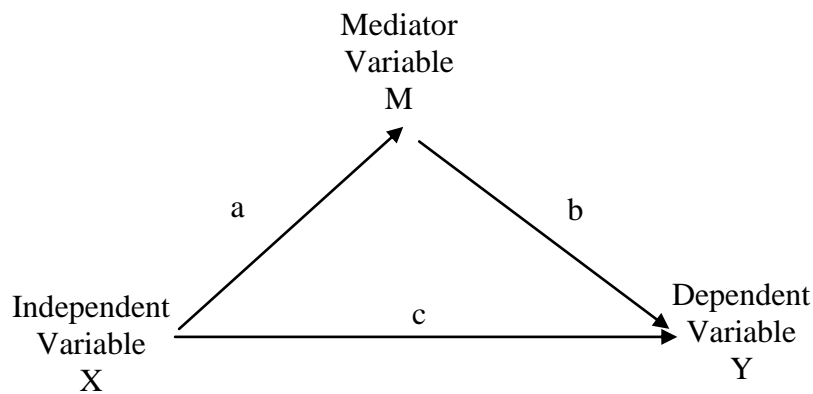


Figure 3.2  
*Path Diagram of Mediating Variable*

#### **f. The path diagram**

The path diagram in Figure 3.2 shows independent variable and its indirect effect on the dependent variable through the mediator variable. This model uses three variable systems which act as a two causal paths feeding into the outcome variable; the direct impact of the independent variable (Path c) and the impact of the mediator (Path b). There is also a path from the independent variable to the mediator (Path a).

A variable can function as a mediator if it satisfies the following conditions: (a) variations in level of the independent variable significantly account for variations in the presumed mediator (Path a). (b) variations in the mediator significantly account for variations in the dependent variable (Path b), and (c) when Path a and b are controlled, a previously significant relation between the independent and dependent variables is no longer significant, with the strongest demonstration of mediation occurring when Path c is zero. In the last condition, when Path c is reduced to zero, there have a strong evidence for a single, dominant mediator. If the residual Path c is

not zero, this indicates the operation of multiple mediating factors (Baron and Kenny, 1986; Judd and Kenny, 1981).

The following equation was used to test the mediation: first, regressing the mediator on the independent variables and the result must have an effect on the mediator in the first equation; second, regressing the dependent variable on the independent variable and the result must affect the dependent variable; and third, regressing the dependent variable on both the independent variable and on the mediator. Separate coefficients for each equation should be estimated, tested and the result must affect the dependent variable. If these conditions are met, then the effect of the independent variable on the dependent variable must be less in the third equation than in the second. Full mediation holds if the independent variable has no effect when the mediator is controlled.

### 3.7 Hypotheses Testing Summary

The summary of hypotheses testing is shown in Table 3.10.

Table 3.10

*Summary of Hypotheses Testing*

No.	Research Hypotheses	Technique of Analysis
H <sub>1</sub>	Service quality has a positive effect on customer loyalty.	Regression
H <sub>2</sub>	Service quality has a positive effect on customer satisfaction.	Regression
H <sub>3</sub>	Service quality has a positive effect on customer trust.	Regression
H <sub>4</sub>	Customer satisfaction has a positive effect on customer loyalty.	Regression
H <sub>5</sub>	Customer trust has a positive effect on customer loyalty.	Regression
H <sub>6</sub>	Customer satisfaction mediates the relationship between service quality and customer loyalty.	Multiple Regression
H <sub>7</sub>	Customer trust mediated the relationship between service quality and customer loyalty.	Multiple Regression

### **3.8 Chapter Summary**

This chapter describes the study's research methodology. First, the questionnaire that was designed to collect data for analysis is described. The research sampling method is then elaborated. Finally, the statistical analysis was presented.



## CHAPTER 4

### ANALYSIS AND FINDINGS

#### 4.0 Introduction

This chapter focuses on the results of the data analysis based on the objectives of this study and the hypotheses tested. This chapter provides information's on the data analysis of the response rates and respondent profiles. Secondly, the validity, reliability and descriptive statistic of the variables are analysed. Thirdly, the research hypotheses that relate to the topic of the relationship among service quality, client's satisfaction, their trust, and loyalty are tested and lastly is the summary of the chapter.

#### 4.1 Data Collection and Response Rate

The data for this study was assembled through a questionnaire targeting 507 public companies listed on the SET. The data collection was conducted over a period of 3 months, starting from April, 2014 until June, 2014. Prior to performing the data analysis, the negatively worded items was re-code into a positive form.

Table 4.1  
*Summary of Response Rates*

Questionnaire mailed	507
No. of responses	296
Response rates (296/507)	58.38%

Table 4.1 shows the distribution of the questionnaires. 507 questionnaires were given to the owner/general manager, president/director, accounting manager, and

department head of the public companies listed on the SET. However, only 296 questionnaires were received resulting in a response rate of 58.38%.

According to Tabachnick and Fiffell (2007) gave a formula in calculating sample size requirements, taking into account the number of independent variable wish is available:  $N > 50 + 8m$  (where  $m$  = number of independent variables). In this study, the number of independent variables composed of 22 measurable items. The measurable items relate to the construction of service quality (SERVQUAL). This study requires a minimum sample size of 226 respondents because this sample size will give more precision and confidence in the results obtained (Tabachnick and Fiffell, 2007; Sekaran, 2005). Therefore, the 296 questionnaires acquired are available and can be used for factor analysis and multiple regression analysis as suggested by Tabachnick and Fiffell (2007).

## 4.2 Respondent Profiles

This section presents the profile of the respondents by using a descriptive analysis. There are two parts of the identification, the first part concerns personal identification and second part concerns company identification.

### 4.2.1 Part I

The first part describes the personal identification such as sex, age, education level, year of service experience, and position.

Table 4.2  
*The Respondents' Gender*

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	78	26.35
Female	218	73.65
<b>Total</b>	<b>296</b>	<b>100.00</b>

The total of 296 respondents comprised mainly of 218 female (73.65%) and 78 male (26.35%) as shows in Table 4.2.

Table 4.3  
*The Respondents' Age*

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
Under 25 years	3	1.01
Between 25-30 years	9	3.04
Between 31-35 years	54	18.24
Between 36-40 years	50	16.89
Between 41-45 years	62	20.95
Between 46-50 years	58	19.60
Between 51-55 years	35	11.83
Between 56-60 years	22	7.43
Above 60 years	3	1.01
<b>Total</b>	<b>296</b>	<b>100.00</b>

The respondents' age are classified by years, starting from under 25 years old to above 60 years old. Based on Table 4.3, most of the respondents' age is between 31 to 50 years old. A total of 62 respondents (20.95%) are between 41 until 45 years old, 58 respondents (19.60%) age are between 46 to 50 years old, 54 respondents (18.24%) age are between 31 to 35 years old, and 50 respondents (16.89%) age are between 36 to 40 years old.

Table 4.4  
*The Respondents' Education Level*

<b>Education Level</b>	<b>Frequency</b>	<b>Percent</b>
Bachelor Degree	153	51.69
Master Degree	140	47.30
Doctoral Degree	3	1.01
<b>Total</b>	<b>296</b>	<b>100.00</b>

In term of the respondents' education level, most of them, which are 153 respondents (51.69%) graduated with a bachelor's degree and 140 respondents (47.30%)

graduated with a master's degree. Only 3 respondents (1.01%) graduated with a doctoral degree.

Table 4.5  
*The Respondents' Year of Service Experience*

<b>Year of service experience</b>	<b>Frequency</b>	<b>Percent</b>
Less than 2 year	3	1.01
2 – 4 years	3	1.01
5 – 7 years	19	6.42
8 – 10 years	58	19.60
More than 10 years	213	71.96
<b>Total</b>	<b>296</b>	<b>100.00</b>

Table 4.5 presented that more than half of the respondents; which is 213 respondents (71.96%) have working experience more than 10 years, 58 respondents (19.60%) have working experience between 8 to 10 years, and 19 respondents (6.42%) have working experience between 5 to 7 years of service experience.

Table 4.6  
*The Respondents' Position*

<b>Position</b>	<b>Frequency</b>	<b>Percent</b>
President/Director	37	12.50
Accounting Manager	222	75.00
Department Head	22	7.43
Others	15	5.07
<b>Total</b>	<b>296</b>	<b>100.00</b>

Table 4.6 shows the respondents' position held within the firm; a majority of them are accounting managers which consists of 222 respondents (75%), 37 respondents (12.50%) are president/director, and 22 respondents (7.43%) are a department's head. Only 15 respondents (5.07%) are in other position such as financial manager, financial and accounting senior supervisor, and financial and accounting supervisor.

To sum part I, out of 296 respondents, 218 (73.68%) of them were female. The age group of 41 to 45 (20.95%) was the biggest age group of the sample. For education attainment, about 51.69% possessed a bachelor's degree. Most of the respondents were accounting manager (75%) and 71.96% of the respondents have been with the public companies for more than ten years.

#### 4.2.2 Part II

The second part describes the company's identification: namely audit firm, industry sector, year of company operation, and year of receiving audit service.

Table 4.7  
*The Respondents' Name of Audit Firm*

<b>Audit Firm</b>	<b>Frequency</b>	<b>Percent</b>
<b>Big-Four Audit Firms:</b>		
Ernst & Young Office Co., Ltd.	92	31.08
Phoomchai Audit Co., Ltd.	53	17.91
Pricewaterhousecoopers ABAS Co., Ltd.	36	12.16
Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd.	8	2.70
<b>Total</b>	<b>189</b>	<b>63.85</b>
<b>Non Big- Four Audit Firms:</b>		
Dharmniti Auditing Co., Ltd.	27	9.12
D I A International Auditing Co., Ltd.	19	6.42
Grant Thornton Co., Ltd.	16	5.41
Karin Audit Co., Ltd.	11	3.72
ANS Audit Co., Ltd.	8	2.70
Office of Pitisevi Co., Ltd.	7	2.37
Dr. Virach and Associates Co., Ltd.	6	2.03
Sam Nak-Ngan A.M.C. Co., Ltd.	4	1.35
ASV & Associates Co., Ltd.	3	1.01
Bunchikij Co., Ltd.	3	1.01
S.K. Accountant Services Co., Ltd.	3	1.01
<b>Total</b>	<b>107</b>	<b>36.15</b>
<b>Grand Total</b>	<b>296</b>	<b>100.00</b>

Table 4.7 shows the amount of customers' of the Big-Four audit firm and Non Big-Four audit firms in Thailand. There are 189 customers (63.85%) who use the services of the Big-Four audit firms and 107 customers (36.15%) who use the services of the Non Big-Four audit firms. Among the 189 customers (63.85%) of the Big-Four audit firms; Ernst & Young Office Co., Ltd. has the most amount of customer within the Big-Fours audit firm with 92 customers (31.08%), Phoomchai Audit Co., Ltd. ranks second with 53 customers (17.91%), Pricewaterhousecoopers ABAS Co., Ltd. took the third place with 36 customers (12.16%), and Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd. has the lowest amount of customer within the Big-Fours with only 8 customers (2.7%).

Within the 107 customers (36.15%) of the Non Big-Four audit firms; Dharmniti Auditing Co., Ltd. has the largest portion of customers (27 customers, 9.12%), followed by D I A International Auditing Co., Ltd. with 19 customers (6.42%) and Grant Thornton Co., Ltd. with 16 customers (5.41%).

Table 4.8  
*The Respondents' Industry Sector*

Industry Sector	Frequency	Percent
Services	69	23.31
Property & Construction	61	20.61
Industrial	53	17.91
Financials	39	13.18
Agro & Food Industry	27	9.12
Consumer Products	22	7.43
Technology	16	5.40
Resources	9	3.04
<b>Total</b>	<b>296</b>	<b>100.00</b>

Table 4.8 shows the respondents' industry sector. 69 (23.31%) of the respondent are from the services industry, 61 (20.61%) are from property and construction, 53 (17.91%) are from industrial industry, 39 (13.18%) are from financials industry, 27 (9.12%) are from agro and food industry, 22 (7.43%) are from consumer products industry, 16 (5.40%) are from technology industry, and 9 (3.04%) from resource industry.

Table 4.9  
*The Respondents' Year of Operation*

<b>Industry Sector</b>	<b>Frequency</b>	<b>Percent</b>
Less than 5 years	6	2.03
5-10 years	8	2.70
11-15 years	40	13.51
16-20 years	32	10.81
More than 20 years	210	70.95
<b>Total</b>	<b>296</b>	<b>100.00</b>

Table 4.9 shows that 210 public companies (70.95%) have been operating more than 20 years, 40 public companies (13.51%) operated between 11 to 15 years, 32 public companies (10.81%) operated within 16 to 20 years, 8 public companies (2.7%) operated between 5 to 10 years, and 6 public companies (2.03%) have been operating less than 5 years.

Table 4.10  
*The Respondents' Year of Audit Service*

<b>Year of Audit Service</b>	<b>Frequency</b>	<b>Percent</b>
Less than 5 years	81	27.36
5-10 years	114	38.51
11-15 years	47	15.88
16-20 years	29	9.80
More than 20 years	25	8.45
<b>Total</b>	<b>296</b>	<b>100.00</b>

Table 4.10 shows the respondents' year of audit service. 114 public companies (38.51%) have been using the audit service between 5 to 10 years, 81 public companies (27.36%) uses the audit service less than 5 years, 47 public companies (15.88%) use the audit service between 11 to 15 years, 29 public companies (9.80%) uses the audit service between 16 to 20 years, and 25 public companies (8.45%) have been using the audit service for more than 20 years.

Based on part II, the public companies listed on the Stock Exchange of Thailand under the Thailand law and regulations, are mainly from the service industry (23.31%); property and construction (20.61%), industrial industry (17.91%), and financials industry (13.18%) and have been operating for more than 20 years (70.95%). Most of the public companies mainly uses the audit service from the Big-Four audit firms (63.85%) and have been using their service between 5 to 10 years (38.51%).

### **4.3 Validity and Reliability**

Validity is a constructed measurement which correctly represents a specific concept of interest (Hair et al., 2010) and explains the instrument that is being developed by the researcher whether it is appropriate to measure the observed variables (Sekaran and Bougie, 2010). The exploratory factor analysis was used to validate the items measured corresponding to the concept of measurement. Additionally, this study used the factor analysis as a data reduction method to develop a reliability of the scale.

Factor analysis can be used extensively by a researcher in developing and evaluating tests and scales. The large number of individual scale items and questions can be refined and reduced to form a smaller number of coherent sub-scales. Factor analysis can also be used to reduce a large number of related variables to a more manageable number, prior to using them in multiple regression or multivariate analysis of variance. Two statistical measures are used to assess the factor ability of the data which are the Bartlett's test of sphericity (Bartlett, 1954), and the Kaiser-Meyer-Olkin (KMO) measurement of sampling adequacy (Kaiser, 1974). The result of the Bartlett's test of sphericity should be significant ( $p < .05$ ) for the factor analysis to be considered appropriate. The KMO index ranges from 0 to 1, with 0.60 suggested as the minimum value for a good factor analysis (Tabachnick and Fidell 2007).

This study uses the principal component extraction (PCA) technique to produce a smaller number of linear combinations within the original variables. There are two main issues to consider in determining whether a set of data is suitable to use for the factor analysis: sample size and the strength of the relationship among the variables (or items). Nunnally (1978) recommended that the sample size required for factor analysis should be ten cases for each item while Tabachnick and Fidell (2007) suggested that five cases for each item are adequate in most cases. For the strength of the relationship among the variables; the correlation matrix for evidence of coefficients should be greater than 0.30 (Tabachnick and Fidell, 2007).

In this study, the number for each factor is followed by (1) the value of eigenvalue of 1.0 or more which are retained for further investigation. The eigenvalue of a factor represents the amount of the total variance explained by that factor. (2) The

communalities value of the item should be greater than 0.50 to be retained in the analysis. (3) The item with cross loading was deleted. (4) The cutoff score for factor loading at  $\pm 0.50$  are acceptable.

The reliability for each variable in this study was measured by using the Cronbach's Alpha ( $\alpha$ ). The measurement of the internal consistency reports shows that the closely related set of items are grouped in a specific variable (Hair et al., 2010). The Cronbach's Alpha value for a variable should be 0.70 or higher to indicate internal consistency (Hair et al., 2010; Devellis, 2003).

#### **4.3.1 Dependent Variable: Customer Loyalty**

The next section presents a detail overview of validity and reliability tests for all variables in this study. This section begins with customer loyalty selected as the dependent variable, the service quality as the independent variable, and customer satisfaction and customer trust as the mediating variables.

Customer loyalty was measured using five items. In order to determine the scale items for this study, a principal component factor analysis was performed.

Table 4.11

*Factor Analysis and Reliability Test Result on Customer Loyalty*

<b>Customer Loyalty</b>	<b>Factor Loading</b>
1. I highly recommend my audit firm to other people.	0.877
2. If I could decide again, I would choose my audit firm again.	0.882
3. I intend to continue using my audit firm.	0.848
4. I can identify myself with my audit firm.	0.763
5. I will prefer my audit firm above others.	0.905
Cronbach's Alpha	0.906
Eigenvalues	3.667
Variances Explained (%)	73.331
Cumulative (%)	73.331
The Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.876
The Barlett's test of Sphericity Approx. Chi-Square	984.220
Df	10.000
Sig.	0.000

As presented in Table 4.11, the Cronbach's Alpha values for all items for the dependent variable customer loyalty are above 0.70 as suggested by Hair et al. (2010) and Devellis, (2003), indicating, that all items within the dependent variable tested met the statistical requirement for future analysis.

The statistical test results (KMO = 0.876, Bartlett Test of Sphericity = 984.220, Significance = 0.000, Factor Loading = > 0.50) indicates that the data use is appropriate for factor analysis. All items with the eigenvalues greater than 1.0 were extracted, which accounted for 73.33% of the variance in the set of the items.

#### **4.3.2 Independent Variable: Service Quality**

22 items from five dimensions of SERVQUAL scale was subjected to principal components analysis (PCA). PCA analysis reveals the presence of two components with eigenvalue exceeding 1, with 65.30% and 71.40% as their variance respectively.

The first factor comprised of 16 items and was a combination of four original

dimensions (reliability 4 items, responsiveness 4 items, assurance 3 items, and empathy 5 items). So, this factor was labeled as the “interaction quality”. The second factor comprises of 6 items and was a combination of 3 original dimensions (tangible 4 items, reliability 1 item, and assurance 1 item). This factor was labeled as the “physical quality”. Finally, the indicators of five dimensions of SERVQUAL scale were grouped into two dimensions namely “interaction quality” and “physical quality”.

In order to test the reliability of the two dimensions of service quality (independent variable), Cronbach’s coefficient  $\alpha$  score was computed for each question on the perception score. The Cronbach’s Alpha value which is higher than 0.70, indicates that internal consistency is present (Hair et al., 2010; Devellis, 2003). The reliability coefficients of first dimension consists of 16 questions are shown in Table 4.12. The reliability coefficients of second dimension consist of 6 questions are shown in Table 4.13.

Table 4.12

Factor Analysis and Reliability Test Result on Interaction Quality

<b>Service Quality</b>	<b>Factor Loading</b>
1. When my audit firm promises to do something by a certain time, it does so.	0.849
2. When I have a problem, my audit firm is sympathetic and reassuring.	0.809
3. My audit firm provides its service at the time it promise to do so.	0.811
4. My audit firm keeps its records accurately.	0.832
5. Employees of my audit firm tell customers exactly when service will be performed.	0.856
6. Employees of my audit firm give prompt service to customers.	0.852
7. Employees of my audit firm are always willing to help customers.	0.851
8. Employees of my audit firm are never too busy to respond to customer; request promptly.	0.884
9. I can trust employees of my audit firm.	0.893
10. I feel safe in my transactions with my audit firm's employees.	0.848
11. Employees get adequate support from my audit firm to do their jobs well.	0.836
12. My audit firm gives me individual attention.	0.750
13. My audit firm has operation hours convenient to my needs.	0.798
14. Employees of my audit firm give me personal attention.	0.813
15. My audit firm has my best interest at heart.	0.814
16. Employees of my audit firm know what my needs.	0.883
Cronbach's Alpha	0.971
Eigenvalues	11.207
Variances Explained (%)	70.042
Cumulative (%)	70.042
The Kaiser-Meyer-Olkin Measure of Sampling Adquacy	0.941
The Barlett's test of Sphericity    Approx. Chi-Square	5287.734
Df	120.000
Sig.	0.000

The results in Table 4.12 shows that 16 items of interaction quality scale have internal consistency that measures higher than 0.70 which indicate that the satisfactory levels is consistent. Thus, the interaction quality scale is a satisfactory tool to measure perceived service quality of audit firms in Thailand.

The statistical test results (KMO = 0.941, Bartlett Test of Sphericity = 5287.734, Significance = 0.000, Factor Loading = > 0.50) indicates that the data used was

appropriate for factor analysis. All items with Eigenvalues greater than 1.0 were extracted, which accounted for 70.04% of the variance in the set of items. The exploratory factor analysis results in Table 4.12 indicates that, 16 questions of interaction quality dimension adapted and modified from the SERVQUAL scale matches the results as described by Parasuraman et al. (1988).

Table 4.13

*Factor Analysis and Reliability Test Result on Physical Quality*

<b>Service Quality</b>	<b>Factor Loading</b>
1. My audit firm has up-to-date equipment.	0.843
2. My audit firm's physical facilities are visually appealing.	0.871
3. My audit firm's employees are well dressed and appear neat.	0.882
4. The appearance of the physical facilities of my audit firm is in keeping with the type of services provided.	0.846
5. My audit firm is dependable.	0.819
6. Employees of my audit firm are polite.	0.776
Cronbach's Alpha	0.916
Eigenvalues	4.237
Variances Explained (%)	70.610
Cumulative (%)	70.610
The Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.851
The Barlett's test of Sphericity Approx. Chi-Square	1305.273
Df	15
Sig.	0.000

The results in Table 4.13 shows that 6 items of physical quality scale have internal consistency that measures higher than 0.70 which indicate that the satisfactory levels is consistent. Thus, the physical quality scale is a satisfactory tool to measure perceived service quality of audit firms in Thailand.

The statistical test results (KMO = 0.851, Bartlett Test of Sphericity = 1305.273, Significance = 0.000, Factor Loading = > 0.50) indicates that the data used was appropriate for factor analysis. All items with Eigenvalues greater than 1.0 were

extracted, which accounted for 70.61% of the variance in the set of items. The exploratory factor analysis results in Table 4.13 indicates that 6 questions of physical quality dimension adapted and modified from the SERVQUAL scale matches the results as described by Parasuraman et al. (1988).

In this study, service quality is measured by combining two dimensions of service quality in order to tests the relationship among service quality, customer satisfaction, trust, and loyalty in Thailand's audit firms.

### 4.3.3 Mediating Variables: Customer Satisfaction

Customer satisfaction dimensions are measured by using a 7 statement item. In order to determine the scale items for this study, a principal component factor analysis was performed.

Table 4.14  
*Factor Analysis and Reliability Test Result on Customer Satisfaction*

<b>Customer Satisfaction</b>	<b>Factor Loading</b>
1. I feel that my audit firm's employees are willing to process my need.	0.865
2. I feel that my audit firm's employees provide benefits to me.	0.845
3. I feel that my audit firm's always meet my expectations.	0.860
4. I am satisfied with the service of my audit firm, compare to price.	0.853
5. I feel that my audit fee reasonable given the scope of the audit service.	0.823
6. If people asked, I would strongly recommend my audit firm.	0.858
7. Overall, I am satisfied with my audit firm.	0.836
Cronbach's Alpha	0.935
Eigenvalues	5.043
Variances Explained (%)	72.049
Cumulative (%)	72.049
The Kaiser-Meyer-Olkin Measure of Sampling Adquacy	0.915
The Barlett's test of Sphericity    Approx. Chi-Square	1584.203
Df	21.000
Sig.	0.000

Table 4.14 shows the Cronbach's Alpha values for all items of customer satisfaction (mediating variable) with results all are above 0.70 as suggested by Hair et al. (2010) and Devellis, (2003). All items within the mediating variable being tested in this study met the statistical requirement for future analysis.

The KMO score was 0.915, which indicated that the factor analysis technique used is appropriate. The Bartlett's test of sphericity is significant at a level of 0.000. All items had a factor loading above 0.50 which achieved the rule of thumb that the communalities value of the items to be retained in the factor analysis should be greater than 0.50. All items with Eigenvalues greater than 1.0 were extracted, which accounted for 72.05% of the variance in these set of items. The Cronbach's alpha for each factor reached the satisfactory level, ranging from 0.823 to 0.865, and therefore indicated that the scale was reliable.

#### **4.3.4 Mediating Variables: Customer Trust**

Dimensions for customer trust were measured by using five statement items. In order to determine the scale items for this study, a principal component factor analysis were performed.

Table 4.15

*Factor Analysis and Reliability Test Result on Customer Trust*

<b>Customer Trust</b>	<b>Factor Loading</b>
1. I am sure that the staff of my audit firm act in my best interest.	0.890
2. I am sure that my audit firm's personnel would do everything to satisfy me.	0.893
3. I have great confidence in my audit firm's staff.	0.864
4. I believe that the price/quality ratio offered at my audit firm is very reasonable.	0.844
5. I consider myself loyal to my audit firm.	0.801
Cronbach's Alpha	0.910
Eigenvalues	3.690
Variances Explained (%)	73.803
Cumulative (%)	73.803
The Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.893
The Barlett's test of Sphericity Approx. Chi-Square	958.186
Df	10.000
Sig.	0.000

Table 4.15 shows the Cronbach's Alpha values for all items of customer satisfaction (mediating variable) are above 0.70. Hair et al. (2010) and Devellis, (2003) indicates that items within the mediating variable being tested in this study meets the statistical requirement for future analysis.

The statistical test for the KMO score was 0.893, indicating that the factor analysis technique was appropriate. The Bartlett's test of sphericity was significant at a level of 0.000. All items had factor loading above 0.50 which achieved the rule of thumb that the communalities value of the items to be retained in the factor analysis should be greater than 0.50. All items with Eigenvalues greater than 1.0 were extracted, which accounted for 73.80% of the variance in the set of the items. The Cronbach's alpha for each factor reached the satisfactory level, ranging from 0.801 to 0.893, and therefore indicated that the scale was reliable.

#### 4.3.5 Reliability Test for the Variables

The results of reliability tests for all variables are shown in Table 4.16.

Table 4.16

*Reliability Test for the Variables*

<b>Variables</b>	<b>Service Quality</b>	<b>Customer Satisfaction</b>	<b>Customer Trust</b>	<b>Customer Loyalty</b>
Cronbach's Alpha Value (a)	0.974	0.935	0.910	0.906

The results in Table 4.16 shows the Cronbach's Alpha values for four variables which consist of service quality ( $\alpha=0.974$ ), customer satisfaction ( $\alpha=0.935$ ), customer trust ( $\alpha=0.910$ ), and customer loyalty ( $\alpha=0.906$ ). Overall, the Cronbach's Alpha values for all the variables in this study are above the cutting point of 0.70, indicating that all items are within the respective variables tested meets the statistical requirement for further analysis (Hair et al, 2010). This confirms that the measurement set used is reliable.

#### 4.4 Descriptive Statistics

Descriptive statistics presented in this study comprised of mean, standard deviation, skewness and kurtosis. As mentioned in the previous section, all the variables (customer loyalty, service quality, customer satisfaction, and customer trust) were measured by using a seven-point Likert scale. The summary of the descriptive statistics of the variables is shown in Table 4.17.

Table 4.17  
*Descriptive Statistics of the Variables*

N=296				
<b>Variable</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Skewness</b>	<b>Kurtosis</b>
Dependent Variable				
Customer Loyalty	5.5966	0.71790	-0.448	-0.397
Independent Variables				
Service Quality	5.7308	0.69317	-0.524	0.218
Mediating Variable				
Customer Satisfaction	5.5077	0.71264	-0.760	0.720
Customer Trust	5.6209	0.71324	-1.042	1.122

The acceptable range value of the skewness is -3:3, and the range value for kurtosis is -10:10 (Kline, 2005). These range values are required for the data to consider to be normally distributed (Kline, 2005). As presented in Table 4.17, the skewness statistics for the variables ranges from -1.042 to -0.448. Likewise, the kurtosis statistics for the variables are in the range of -0.397 to 1.122. Collectively, all the items that make up the measured variables have an absolute value of kurtosis smaller than -10:10 indicating the values of skewness and kurtosis of the measurement items did not violate the conservative rule of thumb within the conventional limits of normality criteria (Hair et al., 2010; Kline 2005). In this study, the skewness and kurtosis statistics for the variables indicated that the data in this study are fitted in normal distribution.

The histogram, the normality probability plot (P-P plots) and the scatterplot of the regression standardized residual shows that the result of the standardized residual is not more than 3.3 or less than -3.3 indicating that the normality was verified (Tabachnick and Fidell, 2007) as show in Figure 4.1, Figure 4.2 and Figure 4.3.

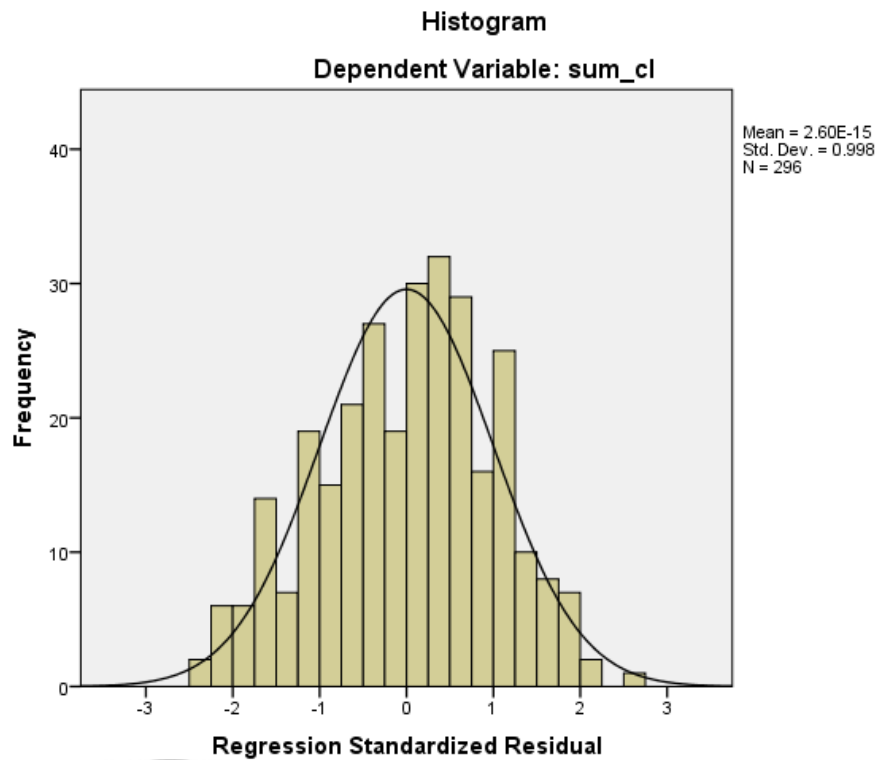


Figure 4.1  
*Histogram of the Regression Residuals*

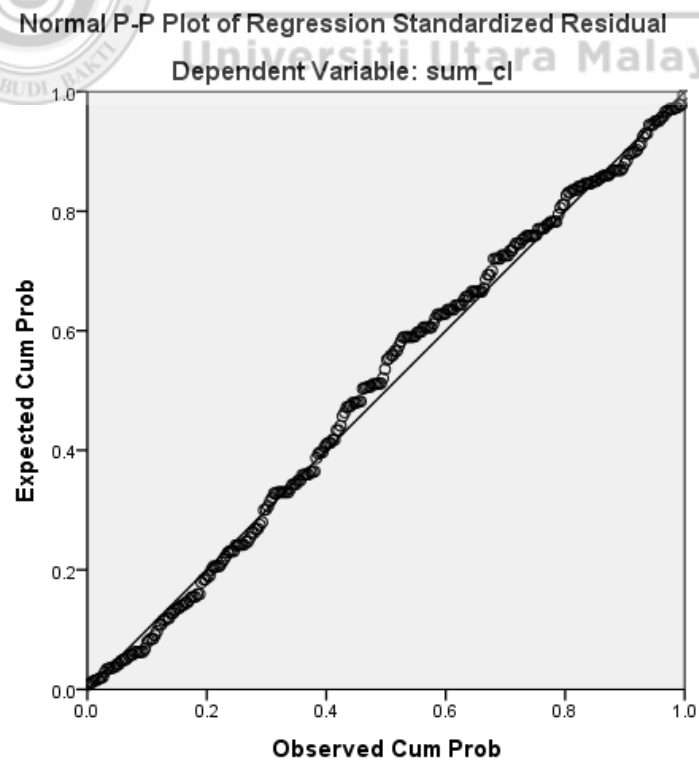


Figure 4.2  
*Normality Testing Using Normal Probability Plot*

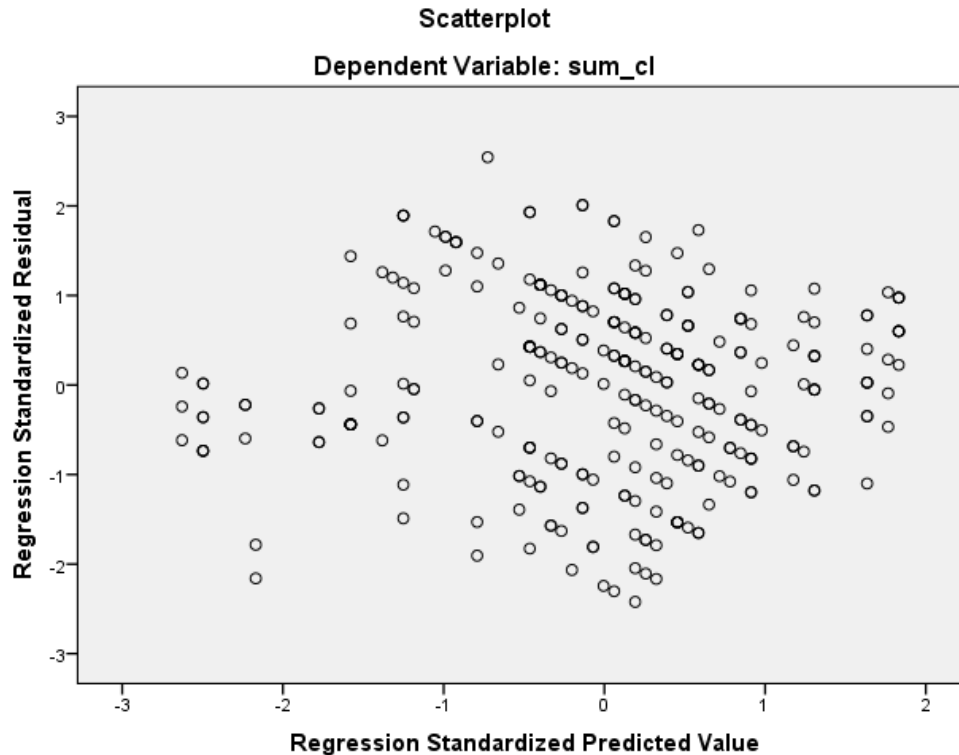


Figure 4.3  
Scatterplot

#### 4.5 Correlation and Regression Analysis

The Person correlation was employed to explore the relationship among independent variable (service quality), mediating variables (customer satisfaction and customer trust), and dependent variable (customer loyalty).

Table 4.18

*Correlations among Service Quality, Customer Satisfaction, Customer Trust, and Customer Loyalty*

Variables	Service Quality	Customer Satisfaction	Customer Trust	Customer Loyalty
Service Quality	1	0.811	0.851	0.672
Customer Satisfaction	-	1	0.846	0.651
Customer Trust	-	-	1	0.700
Customer Loyalty	-	-	-	1

Note: Pearson correlation is significant

Table 4.18 presents the result of the assessment between service quality, customer satisfaction, customer trust, and customer loyalty by using the Pearson correlation analysis with the significant level at 0.01. The results show that service quality is strongly correlated to customer satisfaction (0.811), customer trust (0.851), and customer loyalty (0.672). Furthermore, the results reveal that a strong correlation between customer satisfactions to customer trust (0.846), customer loyalty (0.651) exists. There is also a strongly correlated relationship between customer trust and customer loyalty (0.700). This means that a strong and significant relationship between service quality, customer satisfaction, customer trust, and customer loyalty is present among customer in Thailand's audit firms.

#### 4.6 Hypotheses Tests

The hypotheses test were performed using the standardised solution estimate and the t-value.

Table 4.19  
*Hypotheses Analysis*

Hypotheses	Relationship Coefficient	Standardized $\beta$	t	Accepted
H <sub>1</sub>	Service Quality → Customer Loyalty	0.672	15.578	Yes
H <sub>2</sub>	Service Quality → Customer Satisfaction	0.811	23.811	Yes
H <sub>3</sub>	Service Quality → Customer Trust	0.851	27.777	Yes
H <sub>4</sub>	Customer Satisfaction → Customer Loyalty	0.651	14.705	Yes
H <sub>5</sub>	Customer Trust → Customer Loyalty	0.700	16.809	Yes

*Note:* p < 0.000 (two-tailed); n=296

Table 4.19, present the summary of hypothesis analysis for H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub>, and H<sub>5</sub>. The results showed that the independent variable, namely service quality has a positive influence on customer loyalty (dependent variable), customer satisfaction

(mediator variable) and customer trust (mediator variable). The results reveal that  $H_1$  is supported ( $\beta=0.672$ ,  $p<0.000$ ),  $H_2$  is supported ( $\beta=0.811$ ,  $p<0.000$ ), and  $H_3$  is supported ( $\beta=0.851$ ,  $p<0.000$ ). The relationship between customer satisfaction has proven to have a significant positive influence on customer loyalty,  $H_4$  is supported ( $\beta=0.651$ ,  $p<0.000$ ). The relationship between customer trust also had significant positive influence on customer loyalty,  $H_5$  supported ( $\beta=0.700$ ,  $p<0.000$ ).

#### 4.7 Testing of Mediation

This study tested the mediating effect of customer satisfaction on the relationship between service quality and customer loyalty ( $H_6$ ) and customer trust on the relationship between service quality and customer loyalty ( $H_7$ ) by using four causal steps test by Baron and Kenny, (1986).

##### 4.7.1 Testing of Mediator Variables: Customer Satisfaction: ( $H_6$ )

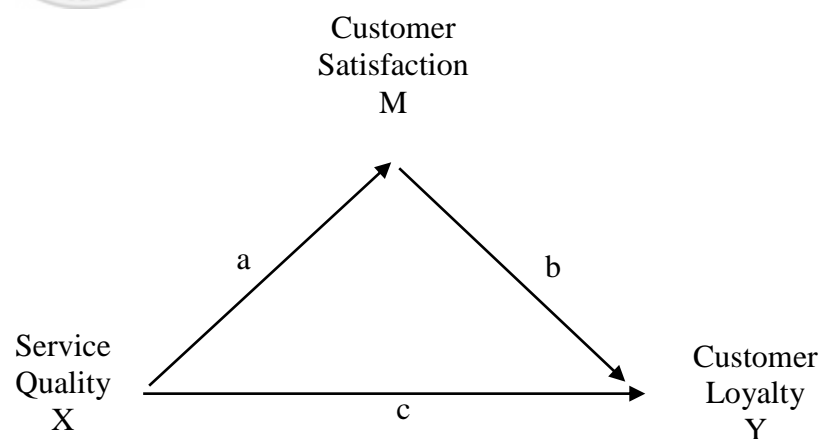


Figure 4.4  
*Service quality, customer satisfaction, and customer loyalty*

Figure 4.4 explain the relationship between service quality, customer satisfaction and customer loyalty. In Path a, the measure of the perception of service quality dimension was regressed on the perceptions of customer satisfaction. In Path b, customer satisfaction measure was regressed on the perception of customer loyalty. In Path c, service quality dimension measure was regressed on the perception of customer loyalty. Finally, the customer loyalty measure was regressed on both, perception of service quality dimension and the perception of customer satisfaction.

The four causal steps test for mediating variable of customer satisfaction on the relationship between service quality and customer loyalty is shown in Table 4.20.

Table 4.20  
*Step 1: Testing of Mediator (Customer Satisfaction)*

Step 1	Unstandardised Coefficient		Standardised Coefficient		<i>t</i>	<i>p</i>
	$\beta$	Std.Error	$\beta$			
M: Customer Satisfaction						
X: Service Quality	0.834	0.035	0.811	23.811	0.000	
$R^2$	0.659					
Adjusted $R^2$	0.657					
<i>F</i>	569.970					
Sig <i>F</i>	0.000					

Step 1, to assess Path a, the service quality perceive, was used to predict the mediator variable of customer satisfaction and has a significant relationship with customer satisfaction ( $\beta = 0.811$ ;  $p < 0.001$ ).

Table 4.21

*Step 2: Testing of Mediator (Customer Satisfaction)*

<b>Step 2</b>	Unstandardised Coefficient		Standardised Coefficient	<i>t</i>	<i>p</i>
	$\beta$	Std.Error	$\beta$		
Y: Customer Loyalty					
X: Service Quality	0.696	0.045	0.672	15.578	0.000
R <sup>2</sup>	0.452				
Adjusted R <sup>2</sup>	0.450				
<i>F</i>	242.659				
Sig <i>F</i>	0.000				

Step 2, in Path c, (path a and b were controlled) before the inclusion of the mediator as previously revealed, the relationship between service quality and customer loyalty was significant ( $\beta = 0.696$ ;  $p < 0.001$ ).

Table 4.22

*Step 3: Testing of Mediator (Customer Satisfaction)*

<b>Step 3</b>	Unstandardised Coefficient		Standardised Coefficient	<i>T</i>	<i>p</i>
	$\beta$	Std.Error	$\beta$		
Y: Customer Loyalty					
M: Customer Satisfaction	0.311	0.072	0.308	4.297	0.000
X: Service Quality	0.437	0.074	0.422	5.882	0.000
R <sup>2</sup>	0.452				
Adjusted R <sup>2</sup>	0.450				
<i>F</i>	242.659				
Sig <i>F</i>	0.000				

In step 3, when Path b was used to assess the mediating variable, customer satisfaction was entered to predict the customer loyalty. The result reveals that it has a significant relationship ( $\beta = 0.311$ ;  $p < 0.001$ ). In Path c, (when Path a and b were controlled) before the inclusion of the mediator as previously revealed, the relationship between service quality and customer loyalty was  $\beta = 0.696$ ;  $p < 0.001$ . However, after the customer loyalty was regressed on both, service quality and

customer satisfaction, the direct effect of service quality on customer loyalty was also significant ( $\beta = 0.437$ ;  $p < 0.001$ ).

Table 4.23

*Step 4: Testing of Mediator (Customer Satisfaction)*

Step 4	Summary		
	Dependent Variable : Customer Satisfaction		
	Before Mediating	After Mediating	Result
Service Quality	0.696	0.437	Partial Mediation
Customer Satisfaction		0.311	

Finally in Step 4, the  $\beta$  value = 0.437 for service quality (independent variable) is less than  $\beta = 0.696$  for service quality (independent variable) as mentioned in step 2. Therefore the relationship between service quality and customer loyalty is partially mediated by customer satisfaction. The result for testing the mediating effect of customer satisfaction on the relationship between service quality and customer loyalty is shown in Figure 4.5.

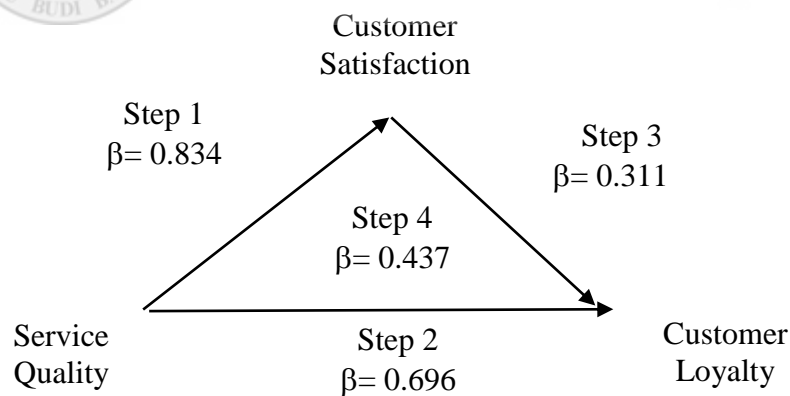


Figure 4.5

*Mediating effect of customer satisfaction on the relationship between service quality and customer loyalty*

#### 4.7.2 Testing of Mediator Variables: Customer Trust: (H<sub>7</sub>)

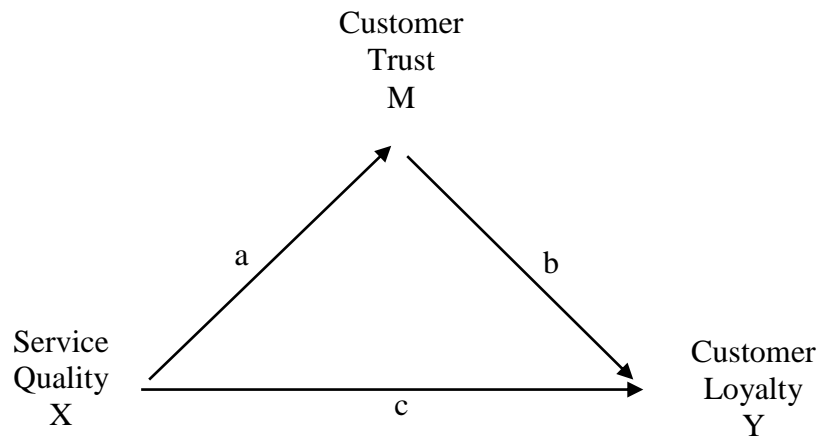


Figure 4.6  
*Service quality, customer trust, and customer loyalty*

Figure 4.6 explain the relationship between service quality, customer trust and customer loyalty. In Path a, the perception of service quality dimension was regressed on the perceptions of customer trust. In Path b, customer trust was regressed in the perception of customer loyalty. In Path c, service quality dimension measure was regressed in perception of customer loyalty. Finally, the customer loyalty measure was regressed on both, perception of service quality dimension and the perception of customer trust.

The four causal steps test for mediating variable of customer trust on the relationship between service quality and customer loyalty is shown in Table 4.24 below.

Table 4.24

*Step 1: Testing of Mediator (Customer Trust)*

<b>Step 1</b>	Unstandardised Coefficient		Standardised Coefficient		<i>t</i>	<i>p</i>
	$\beta$	Std.Error	$\beta$			
M: Customer Trust						
X: Service Quality	0.876	0.032	0.851		27.777	0.000
$R^2$	0.724					
Adjusted $R^2$	0.723					
<i>F</i>	771.534					
Sig <i>F</i>	0.000					

Step 1, to assess Path a, the perceive service quality was used to predict the mediator variable of customer trust and has a significant relationship with customer trust ( $\beta = 0.876$ ;  $p < 0.001$ ).

Table 4.25

*Step 2: Testing of Mediator (Customer Trust)*

<b>Step 2</b>	Unstandardised Coefficient		Standardised Coefficient		<i>t</i>	<i>p</i>
	$\beta$	Std.Error	$\beta$			
M: Customer Loyalty						
X: Service Quality	0.696	0.045	0.672		15.578	0.000
$R^2$	0.452					
Adjusted $R^2$	0.450					
<i>F</i>	242.659					
Sig <i>F</i>	0.000					

Step 2, in Path c, (when path a and b were controlled) before the inclusion of the mediator as previously revealed, the relationship between service quality and customer loyalty was significant ( $\beta = 0.696$ ;  $p < 0.001$ ).

Table 4.26

*Step 3: Testing of Mediator (Customer Trust)*

<b>Step 3</b>	Unstandardised Coefficient		Standardised Coefficient		<i>t</i>	<i>p</i>
	$\beta$	Std.Error	$\beta$			
Y: Customer Loyalty						
M: Customer Trust	0.466	0.078	0.463		5.960	0.000
X: Service Quality	0.288	0.081	0.278		3.578	0.000
$R^2$	0.452					
Adjusted $R^2$	0.450					
<i>F</i>	242.659					
Sig <i>F</i>	0.000					

Step 3, when Path b was assessed the mediating variable of customer trust was entered to predict the customer loyalty. The result revealed it has a significant relationship ( $\beta = 0.466$ ;  $p < 0.001$ ). In Path c, (when Path a and b were controlled) before the inclusion of the mediator as previously revealed, the relationship between service quality and customer loyalty was ( $\beta = 0.696$ ;  $p < 0.001$ ). However, after customer loyalty was regressed on service quality and customer trust, the direct effect of service quality on customer loyalty was also significant ( $\beta = 0.288$ ;  $p < 0.001$ ).

Table 4.27

*Step 4: Testing of Mediator (Customer Trust)*

<b>Step 4</b>	<b>Summary</b>		
	Dependent Variable : Customer Trust		
	Before Mediating	After Mediating	Result
Service Quality	0.696	0.288	Partial
Customer Trust		0.466	Mediation

In Step 4, the  $\beta$  value for service quality (independent variable) is 0.288 which is less than  $\beta = 0.696$  for service quality (independent variable) in step 2. Therefore the relationship between service quality and customer loyalty was partially mediated by customer trust. The result for testing mediating effect of customer trust on the

relationship between service quality and customer loyalty can be shown in Figure 4.7.

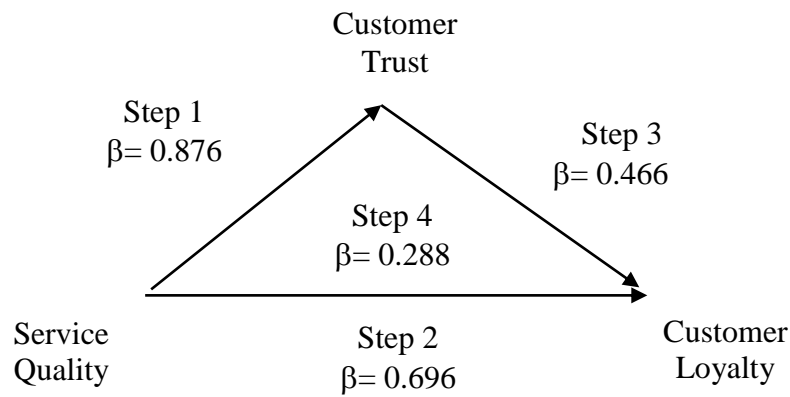


Figure 4.7

*Mediating effect of customer trust on the relationship between service quality and customer loyalty*

## 4.8 Chapter Summary

Chapter 4 presents the data analysis and the report of the results obtained through the statistical testing as mention in the previous chapters has been discussed. The first discussion was about data screenings and was followed by validity and reliability tests. Descriptive statistics as well as hypotheses testing results were presented. Table 4.28 showed the summary of the results of the hypotheses tests.

Table 4.28

*Summary of Hypotheses Analysis*

No	Research Hypotheses	Technique of Analysis	Results
H <sub>1</sub>	Service quality has a positive effect on customer loyalty.	Regression	Support
H <sub>2</sub>	Service quality has a positive effect on customer satisfaction.	Regression	Support
H <sub>3</sub>	Service quality has a positive effect on customer trust.	Regression	Support
H <sub>4</sub>	Customer satisfaction has a positive effect on customer loyalty.	Regression	Support
H <sub>5</sub>	Customer trust has a positive effect on customer loyalty.	Regression	Support
H <sub>6</sub>	Customer satisfaction mediates the relationship between service quality and customer loyalty.	Multiple Regression	Partial Mediation
H <sub>7</sub>	Customer trust mediated the relationship between service quality and customer loyalty.	Multiple Regression	Partial Mediation



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## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATION**

#### **5.0 Introduction**

This chapter provides a summary of the main findings based on the objectives of the study and the hypotheses tested. The objectives of this study were (1) to determine whether service quality will affect the customer satisfaction, trust, and loyalty in Thailand's audit firms; (2) to determine whether customer satisfaction will affect customer loyalty in Thailand's audit firms; (3) to determine whether customer trust will affect customer loyalty in Thailand's audit firms; (4) to determine the mediating effect of customer satisfaction on the relationship between the service quality and client's loyalty in Thailand's audit firms; and (5) to determine the mediating effect of customer trust on the relationship between service quality and customer loyalty in Thailand's audit firms. Based on the statistical testing results, all the hypotheses developed in this study were positively confirmed, supporting the theory and previous researches on this field. Therefore, this concluding chapter presents the detail discussion on the main findings and the hypotheses results. Practical and theoretical implications, research limitations, and recommendation for future research are also discussed.

#### **5.1 Summary of Major Findings**

This study explores the relationship between service quality and customer loyalty; mediating effect of customer satisfaction and customer trust in Thailand's audit

firms. In order to examine the research problem cited in Chapter 1, service quality was used as the independent variable and was tested with the SERVQUAL model as developed by Parasuraman et al., (1994, 1991, 1990, 1988, 1986, and 1985). Customer's satisfaction and customer's trust were selected as the mediating variable for the relationship between service quality and customer loyalty in Thailand's audit firms. Customer loyalty on the other hand was chosen as the dependent variable.

The sample size of this study consists of 507 companies listed on the Stock Exchange of Thailand. These companies are from eight different industries which are agro and food industry, consumer products, financials, industrials, property and construction, resources, services and technology. Each of these company use auditors certified under Thailand's (1962) law and regulation and are approved by the office of the Stock Exchange of Thailand in order to audit the Securities and Exchange Commission (SEC) registrants. The questionnaires were distributed to all respondents as discussed in Chapter 3 through a mailing instrument. 296 questionnaires were received resulting in a response rate of 58.38% and were use for data analysis.

Finally, the finding from the study discussed the research questions as per in chapter 1.

- (1) What is the relationship of audit firm's service quality with the customer's satisfaction, trust, and loyalty in Thailand's audit firms?
- (2) What is the relationship between customer satisfaction and loyalty in Thailand's audit firms?

- (3) What is the relationship between customer trust and loyalty in Thailand's audit firms?
- (4) What is the effect of customer satisfaction mediating on the relationship between service quality and customer loyalty in Thailand's audit firms?
- (5) What is the effect of customer trust mediating on the relationship between service quality and customer loyalty in Thailand's audit firms?

In this study, the seven main hypotheses ( $H_1$ ,  $H_2$ ,  $H_3$ ,  $H_4$ ,  $H_5$ ,  $H_6$ , and  $H_7$ ) were postulated to investigate the relationship between service quality and customer loyalty; mediating effect of customer satisfaction and customer trust in Thailand's audit firms. The first set of hypotheses, hypothesis one ( $H_1$ ), was aimed to investigate service quality has a positive effect on customer loyalty. Hypothesis two ( $H_2$ ), aims to explore service quality has a positive effect on customer satisfaction. Hypothesis three ( $H_3$ ), aimed to explore service quality has a positive effect on customer trust. The next set of hypotheses, hypothesis four ( $H_4$ ), aimed to examine customer satisfaction has a positive effect on customer loyalty. The third set of hypotheses, hypothesis five ( $H_5$ ), aimed to investigate customer trust has a positive effect on customer loyalty. The final set of hypotheses, hypothesis six ( $H_6$ ), aimed to determine customer satisfaction mediates the relationship between service quality and customer loyalty. The last hypothesis ( $H_7$ ), aimed to determine customer trust mediated the relationship between service quality and customer loyalty.

The result of the data analysis in Chapter 4 is measured by the SERVQUAL model. A high level of service quality is necessary to achieve customer satisfaction, customer trust, and customer loyalty. Customer's satisfaction affects their loyalty.

The customer trust also affects customer loyalty while, customer satisfaction and customer trust acts as a mediate between service quality and customer loyalty. The major significant findings from these seven hypotheses tested are discussed in this section.

**Hypothesis 1: Service quality has a positive effect on customer loyalty**

The first hypothesis determines the level of service quality is positively related to customer loyalty. The result shows that service quality has a strong positive relationship with customer loyalty ( $\beta = 0.672$   $p < .001$ ). Previous studies regarding the relationship between service quality and customer loyalty supports this finding (Sumaedi, Bakti, and Metasari, 2012; Shpetiem, 2012; Coelho and Henseler, 2012; Lu and Guo, 2007).

**Hypothesis 2: Service quality has a positive effect on customer satisfaction**

The second hypothesis is to examine whether the level of service quality is positively related to customer satisfaction. The finding of this study confirms that service quality is significant positively related to customer satisfaction ( $\beta = 0.811$ ,  $p < .001$ ). The result is similar with previous studies findings on the relationship between service quality and customer satisfaction (Leelataypin, Maluesri, and Punnakitikashem, 2011; Cameran, Moizer, and Pettinicchio, 2010; Saha and Thingy, 2009; Dhatsiwat, 2009; Ndubisi, Malhotra, and Chan, 2009, Tsuji, Bennett, and Zhang, 2007; Saravanan and Rao, 2007; Yoo and Park, 2007).

### **Hypothesis 3: Service quality has a positive effect on customer trust**

The third hypothesis is to examine whether the level of service quality is positively related to customer trust. This study discovers that service quality is strongly related to the customer's trust ( $\beta = 0.851$ ,  $p < .001$ ). This finding is supported by previous studies on the service quality and customer trust (Shpetiem, 2012; Coelho and Henseler, 2012; Ribbink et al., 2004).

### **Hypothesis 4: Customer satisfaction has a positive effect on customer loyalty**

Customer satisfaction is the consumer's fulfillment response and acts as an antecedent to customer loyalty. High customer satisfaction will result in increased loyalty for service firm and customer will be less likely to offers from competition (Fornell, 1992). Hypothesis four tests customer satisfaction has a positive effect on customer loyalty. The coefficient indicates that customer satisfaction has a positive effect on customer loyalty ( $\beta = 0.651$ ,  $p < .001$ ). This finding supports the previous studies on the relationship between customer satisfaction and customer loyalty as conducted by Vuuren, Roberts-Lombard, and Tonder, (2012), Khan, (2012), Hsin and Hsin-Wei, (2011), Li-Wei, (2011), Tianxiang and Chunlin, (2010), Kotler and Keller, (2006), Shankar, Amy, Smith, and Rangaswamy, (2003).

### **Hypothesis 5: Customer trust has a positive effect on customer loyalty**

There is enough empirical evidence to accept hypothesis five which states that customer trust has a positive effect on customer loyalty. The result of this hypothesis shows that customer trust has a positive and significant impact on customer loyalty ( $\beta = 0.700$   $p < .001$ ). A higher level of trust from the customer will improve their loyalty. This findings support the relationship marketing theory proposed by Vuuren,

Roberts-Lombard, and Tonder (2012); Yap, Ramayah, and Shahidan (2012); Shpetiem (2012); Seto-Pamies (2012); Kassim and Abdullah (2010); Yieh, Chiau, and Chiu (2007); and Ribbink et al. (2004).

**Hypothesis 6: Customer satisfaction mediates the relationship between service quality and customer loyalty**

Hypothesis six introduces the mediating variables into the regression models to postulate that customer satisfaction mediates the relationship between service quality and customer loyalty. The analysis indicates that customer satisfaction has a partial mediation role in effecting the customer's loyalty. When the customer feels satisfied with the service provided by the audit firm, it will increase their loyalty to the audit firms. Therefore, service quality significantly effects the customer's satisfaction and loyalty. Although customer satisfaction acts as a mediating variable, customer satisfaction does significantly affect their loyalty. This research supports the theory of existing relationship marketing that focuses on maintaining long term relationships with existing customers (Reheul, Caneghem, and Verbruggen, 2013; Chodzaza and Gombachika, 2013; Cheng and Rashid, 2013; Bakti and Sumaedi, 2012; Bedi, 2010; Trasorras, Weinstein, and Abratt, 2009; Ismail et al., 2006)

**Hypothesis 7: Customer trust mediates the relationship between service quality and customer loyalty**

Enough empirical evidence was collected to accept the hypothesis seven which states that a high customer trust acts as a mediate towards the relationship between service quality and customer loyalty. The analysis result indicates that, customer trust has a partial role in effecting the loyalty of customer. When the customer trusts the service

provided by the audit firm, it will increase their loyalty to the audit firms. This study confirms that the service quality directly has a significant effect on customer trust and customer trust directly affects the customer loyalty. Although customer trust acts as mediation variable, customer trust can significantly affect customer loyalty. The main consideration of the customer to trust audit firm is related to the promise in delivering the service to customer. Our findings support the theory of relationship marketing that focuses on maintaining long term relationships with existing customers (Madjid, 2013; Ndubisi, 2007).

## **5.2 Discussions of the Findings**

These findings imply that a high customer loyalty is critical for customers to repeat purchases of a service or product with the audit firm in the future. There is a positive relationship among service quality, customer satisfaction, customer trust, and customer loyalty. A high quality of service will significantly impact the customers' satisfaction, customer trust, and customer loyalty. Therefore, building customer loyalty depends on ensuring that the firm maintains a service with a high quality standard. Hence, the hypothesis of customer loyalty was substantiated. It can be concluded that a major driver of customer loyalty is service quality, customer satisfaction, and customer trust.

The results obtained from analysing the service quality affects on the customer satisfaction, customer trust, and customer loyalty show a positive and significant impact. The test result indicates that there is enough empirical evidence to accept  $H_1$ ,  $H_2$ , and  $H_3$ . Therefore, the result of this study has proven that better service quality will increase customer satisfaction, customer trust and customer loyalty in Thailand's

audit firms. The results of this study is consistent with the relationship marketing theory which states that the key factors affecting customer loyalty are service quality, customer satisfaction and customer trust. This finding support the results from Majid (2013); Cheng and Rashid (2013); Reheul, et al. (2013); Chodzaza and Gombachika(2013); Bakti and Sumaedi (2013); Shpetiem (2012); Khan (2012); Vuuren et al. (2012); Seto-Pamies (2012); Yap et al. (2012); Samen et al. (2011); Omotayo and Joachim (2011); Boohene and Agyapong (2011); Naeem et al. (2009); Mengi (2009); Turk and Avoilar (2009); Akbar and Parvez (2009); Trasorras et al. (2009); Aga and Safakli (2007); Ismail et al. (2006); Ribbink et al. (2004); Saxby et al. (2004); Heung et al. (2000); Parasuraman and Grewal (2000); and Caruana et al. (2000), which shows that loyalty will occur if the customer is satisfied and trust the performance of their service provider.

Hypothesis 4 indicate that there is enough empirical evidence to accept  $H_4$  which states that customer satisfaction has a positive and significantly impact on customer loyalty. The analysis results indicate that higher customer satisfaction will improve customer loyalty in Thailand's audit firms. This finding support the results from Madjid (2013); Shpetim (2012); Vuuren et al. (2012); Seto-Pamies (2012); Yap et al. (2012); Ndubisi (2007); Ismail et al. (2006); Ribbink et al. (2004); Garbarino and Johnson (1999), which shows that loyalty will occur if the customer is satisfied with their service provider performance.

The results of analysing the customer trust on customer loyalty ( $H_5$ ) show a positive and significant impact. The test indicates that there is enough empirical evidence to accept  $H_5$  which states that customer trust significantly enhances customer loyalty.

The result of hypothesis shows that customer trust has a positive and significant impact on customer loyalty.

The overall predictive power of the service quality model used in predicting customer loyalty is greater when customer satisfaction and customer trust ( $H_6$  and  $H_7$ ) are used as a mediator. Results from hypothesis testing shows that the relationship between service quality and customer loyalty are mediated by the customer's satisfaction and trust. Therefore, customer satisfaction and customer trust are major determinant of customer loyalty.

It can thus be concluded that service quality do have an impact on customer loyalty though customer satisfaction and customer trust especially in Thailand's firms. It is important for audit firms in Thailand to improve their service to differentiate from their competitor in order to have their loyal customers. Customers perceived high quality of service, they will lessen the amount of complaints, increase customer loyalty and the customer will pay a high price to the service provider. Customer loyalty can increase a company's income and reduced cost. Thus customer loyalty is useful for audit firms in Thailand in developing their strategies to increase the level of customer loyalty.

### **5.3 Implications of the Study**

Previously in Chapter 4, results of the study show that a relationship between service quality and customer loyalty; mediating effect of customer satisfaction and customer trust in Thailand' audit firms. It is also in line with the research questions and objectives in Chapter 1 and hypotheses in Chapter 3. The findings of this study have

significant contribution to the theoretical and practical implications. The first part presents the theoretical implications while the second part presents the practical implications.

### **5.3.1 Theoretical Implications**

The theoretical implications in this study contributes to the consumer behavioural theory as this study supports the theory in explaining the relationship among service quality, customer satisfaction, customer trust, and customer loyalty especially in the case of service industry. Customer loyalty is influenced by the service quality, customer satisfaction and customer trust.

This study firstly explains the effect of service quality to customer satisfaction, customer trust, and customer loyalty. Next, it explains the effect of customer satisfaction to customer loyalty. It then continues to explain the effect of customer trust to customer loyalty. Finally, this study explains the mediating affect customer satisfaction and customer trust on the relationship between service quality and customer loyalty. This study also explains the existence of consumer behaviour theory postulated and its influence on the extent of customer loyalty in Thailand's audit firms.

### **5.3.2 Practical Implications**

The practical implications in this study have important implications for the practitioners. The practical implication concerns the development of audit firms to improve their customers' loyalty levels, in their effort to increase retention rates and attract new customers through behavioural loyalty. This can benefit audit firms and

help prepares appropriate strategies to focus on the deliverance on their service. Customer perceived higher service provider give more customer satisfaction, customer trust, customer loyalty, and customer will pay a higher price to the service provider.

The study on the value also implies that it is necessary for audit firm's service management to pay attention to staff skill improvement and offering fast and efficient services to their customers.

#### **5.4 Limitations of the Study**

The results presented in this study are useful in the understanding the relationship among service quality and consumer behavioural (customer satisfaction, customer trust and customer loyalty). However, there are several limitations that need to be addressed.

The first limitation is that currently there are 507 companies listed on the Stock Exchange of Thailand. Only 296 public companies listed on the Stock Exchange of Thailand are included in this study. It represents only 58.38% of public listed companies for the year 2013. The results cannot be generalised to other size of business (that is company limited, partnership, single proprietorship, and joint venture). However, it is sufficient enough for conducting the statistical analysis such as correlation, multiple regressions for the generalisation of the results of the study (Tabachnick and Fidell, 2007).

Secondly, there are only 27 audit firms and 145 auditors under Thailand's law and regulations which are approved by the office of the Stock Exchange of Thailand in order to audit the Securities and Exchange Commission (SEC) in this study. The results cannot be generalised to other audit firms which has not receive approval by the office of the Stock Exchange of Thailand.

The last limitation is that, this study mainly uses a quantitative approach to find out the relationship between service quality and customer loyalty: mediating effect of customer satisfaction and customer trust. Therefore, future research should use both quantitative and qualitative approach to find a better understanding of the relationship between service quality and customer loyalty; mediating effect of customer satisfaction and customer trust and how and why the customer's decision effect the audit firm.

## **5.5 Suggestions for Future Research**

This study proposes a relationship between service quality and customer loyalty: mediating effect of customer satisfaction and customer trust. The results of this study support the finding in the literature. Firstly, service quality has a positive effect on customer satisfaction, customer trust, and customer loyalty. Secondly, customer satisfaction has a positive effect on customer loyalty. Thirdly, customer trust has a positive effect on customer loyalty. Finally, customer satisfaction and customer trust mediates the relationship between service quality and customer loyalty. The suggestions for future research are suggested by the findings and limitations of the study. This study explores the extent of the relationship between service quality and customer loyalty; mediating effect of customer satisfaction and customer trust in

Thailand's audit firms. The results show that service quality is the most important decision factors for customer to select the audit firms. Future research should be undertaken by adding other independent variables, mediating variables or moderating variables that might explain the variance of the dependent variable. These variables are important to further improve the customer loyalty of audit firms.

As mentioned in the limitation of the study section, future research can be conducted in other industries and other audit firms are not under the office of the Stock Exchange of Thailand.

## **5.6 Conclusion**

The purpose of this study is to measure service quality perceptions of audit firms' customer and to examine the relationship between service quality and customer loyalty; mediating effect of customer satisfaction and customer trust in Thailand's audit firms. The correlation and regression analysis was used to test the constructed framework which consists of customer satisfaction, customer trust, and customer loyalty. There were influenced by the perception of audit firms' service quality. The results confirmed that, a major driver of customer loyalty is service quality, customer satisfaction, and customer trust.

In addition, the findings of this study are consistent with previous studies. Although, audit firm's customers are satisfied, trust, and loyalty with the overall service quality provided by their audit firms, their customer still switch to other audit firms. Therefore, audit firms need to improve the relationship between audit firm and customer.

In summary this study showed that the relationship among service quality, customer satisfaction, customer trust, and customer loyalty was significant and customer satisfaction and customer trust mediate the relationship between service quality and customer loyalty. The results in this study may be beneficial to the development of consumer behavior theory, especially in service industry. The results of this study also enable audit firms to have a better understanding of customers' need to improve service quality and its effect on customer satisfaction, trust, and loyalty. These findings provide evidence which benefit for both academic and practitioners who are pursuing their interest in this area of study.



## REFERENCES

- Abu-ELSamen, A.A., Akroush, M.N., Al-Khawaldeh, F.M., & Al-Shibly, M.S. (2011). Towards an integrated model of customer service skills and customer loyalty; the mediating role of customer satisfaction. *International Journal of Commerce and Management*, 21(4), 349-380.
- Aczel, A.D., & Sounderpandian, J. (2006). *Complete business statistics (6<sup>th</sup> ed.)*. Boston: McGraw-Hill.
- Aga, M., & Safakli, O. (2007). An empirical investigation of service quality and customer satisfaction in profession accounting firms: Evidence from North Cyprus. *Journal of Problems and Perspectives in Management*, 5, 84-98.
- Akbar, M.M., & Parvez, N. (2009). Impact of service quality, trust, and customer satisfaction on customer loyalty. *ABAC Journal*, 29(1), 24-38.
- Anantadjaya, Sam P.D., Walidin, R.S.E., & Nawangwulan, I.M. (2007). Consumer behavior, supply chain management and customer satisfaction: An investigative study in small and medium enterprises. *Proceeding, International Seminar on Industrial Engineering & Management*, August 29-30, Jakarta, Indonesia. ISSN # 1978-774X.
- Anderson, J.C. & Narus, J.A. (1984). A model of the distributor's perspective of distributor-manufacturer working relationships. *Journal of Marketing*, 48 (Fall), 62-74.
- Anderson, R.E. & Srinivasan, S.S. (2003). E-satisfaction and e-loyalty: a contingency framework, *Psychology and Marketing*, 20(2), 123-138.
- Armstrong, G., & Kotler, P. (2003). *Marketing and introduction (6<sup>th</sup> ed.)*. New Jersey: Pearson Education.
- Athanassopoulos, A.D. (2000). Customer satisfaction cues to support market segmentation and explain switching behavior. *Journal of Business Research*, 47, 191-207.
- Aydin, S. & Ozer, G. (2005). The analysis of antecedents of customer loyalty in the turkish mobile telecommunication market. *European Journal of Marketing*, 39 (7/8), 910-925.
- Babakus, E., Bienstock, C., & Scotter, J. (2004). Linking perceived quality and customer satisfaction to store traffic and revenue growth. *Decision Sciences*, 35(4), 713-737.

- Babin, B.J., & Babin, J. (2001). Seeking something difference? A model schema deviation's impact on consumer affect, purchase intention and perceived shopping value. *Journal of Business Research*, 54, 89-96.
- Bakti, I.G.M.Y, and Sumaedi, S. i(2012). An analysis of library customer loyalty. The role of service quality and customer satisfaction, a case study in Indonesia. *Library Management*, 34(6/7),397-414.
- Baron R.M., & Kenny D.A. (1986). The moderator-mediator distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51,1173–1182.
- Bartlett, M.S. (1954). A note on the multiplying factors for various  $\chi^2$  approximations. *Journal of the Royal Statistical Society. Series B (Methodological)*, 16(2), 296-298.
- Beattie, V., Goodcare, A., & Fearnley, S. (2003). And then there four: A study of UK audit market concentration-causes, consequences and the scope for market adjustment. *Journal of Financial Regulation and Compliance*, 11(3), 250-265.
- Bedi, M. (2010). An integrated framework for service quality, customer satisfaction and behavioral responses in Indian banking industry: A comparison of public and private sector banks. *Journal of Services Research*, 10(1), 157-172.
- Bennett, P.D. (1995). Dictionary of marketing terms, *American Marketing Association, Chicago, IL*.
- Bitner, M. J. (1995). Building service relationships: It's all about promises. *Journal of the Academy of Marketing Science*, 23(4), 246-251.
- Bloemer, J., & Kasper, H. (1995). The complex relationship between consumer satisfaction and brand loyalty. *Journal of Economic Psychology*, 16, 311-329.
- Bloemer, J., Ruyter, K., & Peeters, P. (1998). Investigating drivers of bank loyalty: The complex relationship between image, service quality and satisfaction. *International Journal of Bank Marketing*, 16(7), 276-286.
- Bloemer, J., Ruyter, K., & Wetzels, M. (1999). Linking perceived service quality and service loyalty: A multi-dimensional perspective. *European Journal of Marketing*, 33(11/12), 1082–1106.
- Bodet, G. (2008). Customer satisfaction and loyalty in service: two concepts, four construct several relationships. *Journal of Retailing and Consumer Service*, 15,156-162.
- Bolton, R.N. & Drew, J.H. (1991). A multistage model of customers' assessments of service quality and value. *Journal of Consumer Research*, 17(4), 375-384.

- Boohene, R., & Agyapong, G. K. Q. (2011). Analysis of the antecedents of customer loyalty of telecommunication industry in Ghana: the case of Vodafone (Ghana). *International Business Research*, 4(1), 229-240.
- Boon, S. D., & Holmes, J. G. (1991). *The dynamics of interpersonal trust: resolving uncertainty in face of risk*. In R. A. Hinde & J. Groebel (Eds.), *Cooperation and Prosocial behavior*. Cambridge University Press.
- Brady, M.K., & Robertson, C.J. (2001). Searching for a consensus on the antecedent role of service quality and satisfaction: An exploratory cross-national study. *Journal of Business Research*, 51(1), 53-60.
- Brashear, T.G., Boles, J.S., Bellenger, D.N. & Brooks, C.M. (2003). An empirical test of trust-building processes and outcomes in sales manager-salesperson relationships. *Journal of the Academy of Marketing Science*, 31(2), 189-200.
- Bryant, L., Jones, D.A., & Widener, S.K. (2004). Managing value creation within the firm: An examination of multiple performance measures. *Journal of Management Accounting Research*, 16, 107-131.
- Caceras, R.C. & Paparoidamis, N.G. (2007). Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty. *European Journal of Marketing*, 41(7/8), 836-867.
- Cameran, M., Moizer, P., & Pettinicchio, A. (2010). Customer satisfaction, corporate image, and service quality in professional services. *The Service Industrial Journal*, 30(3), 421-435.
- Carman, J.M. (1990). Consumer perceptions of service quality: an assessment of the SERVQUAL dimensions. *Journal of Retailing*, 66(1)Spring, 33-35.
- Caruana, A., Money, A.H., & Berthon, P.R. (2000). Service quality and satisfaction: The moderating role of value. *European Journal of Marketing*, 34, 1338-1352.
- Chaudhuri, A., Holbrook, M.B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65, 81-93.
- Chen, P.T., & Hu, H.H. (2010). The effect of relational benefits on perceived value in relation to customer loyalty: An empirical study in the Australian coffee outlets industry. *International Journal of Hospitality Management*, 29, 405-412.
- Chen, Y., & Xie, J. (2007). Cross-marketing network effect with asymmetric customer loyalty: implications for competitive advantage. *Marketing Science*, 26(1), 52-66.
- Cheng, B.L., & Rashid, M.Z.A. (2013). Service quality and the mediating effect of corporate image on the relationship between customer satisfaction and customer loyalty in the Malaysian hotel industry. *Gadjah Mada International Journal of Business*, 15(2), 99-112.

- Chodzaza, G.E., & Gombachika H.S.H. (2013). Service quality, customer satisfaction and loyalty among industrial customers of a public electricity utility in Malawi. *International Journal of Energy Sector Management*, 7(2), 269-282.
- Churchill, G.A., & Surprenant, C. (1982). An investigation into the determinants of customer satisfaction. *Journal of Marketing Research*, 19, 491-504
- Clemes, M.D., Gan, C., Kao, T.H., & Choong, M. (2008). An empirical analysis of customer satisfaction in international air travel. *Innovative Marketing*, 2, 50-62.
- Coetho, P.S., & Henseler, J. (2012). Creating customer loyalty through service customisation. *European Journal of Marketing*, 46(3/4), 331-356.
- Cronin, J.J., & Taylor, S.A. (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing*, 56, 55-68.
- Crosby, L.A., Kenneth, R.E., & Deborah, C. (1990). Relationship quality in service selling: an interpersonal influence perspective. *Journal of Marketing*, 54(July), 68-81.
- Deng, M., Lu, T., Simunic, D.A. & Ye., M. (2014). Do joint audits improve or impair audit quality? *Journal of Accounting Research*, 52(5), 1029-1062.
- Devellis, R.F. (2003). *Scale development: theory and Application* (2<sup>nd</sup> ed.). United State of America: Sage Publications, Inc.
- Dhatsiwat, C. (2009). Public service quality: definition, measurement and its application in the Thai public service. *GSPA NIDA Journal*, 4(1), 105-146.
- Doney, P.M. & Cannon, J.P.(1997). An examination of the nature of trust in buyer-seller relationships. *Journal of Marketing*, 61(April), 35-51.
- Doyle, P., & Stern, P. (2006). *Marketing Management and Strategy* (4th ed.). Prentice Hall Financial Times.
- Du Plessis, L. (2010). Customer relationship management and its influence on customer loyalty at Liberty Life in South Africa. *University of Johannesburg*.
- Duncan, E., & Elliott, G. (2004). Customer service quality and financial performance among Australian retail financial institutions. *Journal of Financial Service Marketing*, 7, 25-41.
- Dwyer, F.R., Schurr, P.H., & Oh, S. (1987). Developing buyer-seller relationships. *Journal of Marketing*, 51(2), 11-27.
- Easterb-Smith, M., Thorpe, R., & Lowe, A. (1991). *Management research: An introduction*. Sage publications, London.

- Eggert, A., & Ulaga, W. (2002). Customer perceived value: a substitute for satisfaction in business markets? *Journal of Business & Industrial Marketing*, 17(2/3), 107-118.
- Eilifsen, A., Messier, Jr. W.F., Glover, S.M., & Prawitt, D.F. (2006). *Auditing and assurance services* (International Edition). Maidenhead: McGraw-Hill Education.
- Engel, J.F., & Blackwell, R.D. (1982). *Consumer behavior* (4<sup>th</sup> ed.). Dryden Press.
- Engel, J.F., Kollat, D.T., & Blackwell, R.D. (1978). *Consumer behavior* (3<sup>rd</sup> ed.). Dryden Press.
- Feick, L., & Lee, J. (2001). The impact of switching cost on the customer satisfaction-loyalty link: mobile phone service in France. *Journal of Service Marketing*, 15(1), 35-48.
- Fornell, C. (1992). A national customer satisfaction barometer: the Swedish experience. *Journal of Marketing*, 55(1), 1-21.
- Fornell, C., Johnson, M.D., Anderson, E.W., Cha, J., & Bryant, B.E. (1996). The American Customer Satisfaction Index: Nature, Purpose, and Findings. *Journal of Marketing*, 60(October), 7-18.
- Francis, J.R. & Yu, M.D. (2009). Big 4 office size and audit quality. *The Accounting Review*, 84(5), 1521-1552.
- Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing*, 58 (April), 1-19.
- Garbarino, E. & Johnson, M.S. (1999). The different roles of satisfaction, trust, and commitment in customer relationship. *Journal of Marketing*, 63(2), 70-87.
- Gefen, D., Karahanna, E. & Straub, D.W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27(1), 51-90.
- General Accounting Office. (2003). *Public accounting firms: Mandated study on consolidation and competition* (GAO Report No. GAO-03-864). Retrieved from <http://www.gao.gov/>, Accessed October 1, 2004.
- Gerpott, T., Rams, W., & Schindler, A. (2001). *Customer retention, loyalty and satisfaction in the German mobile cellular telecommunications market*. Telecommunications Policy, 25, 249-269.
- Gronroos, C., (1995). Relationship marketing: the strategy continuum. *Journal of Academy of marketing Science*, 23(4), 252-254.
- Grover, R., & Vriens, M. (2006). *The handbook of marketing research: uses, misuses, and future advances hardcover*. Sage Publications Inc., United States of America.

- Gul, F., Sami. H., & Zhou. H (2009). Auditor disaffiliation program in China and auditor indepenence. *A Journal of Practice & Theory*, 28(1), 29-51.
- Guo, L., Xiao, J.J., & Tang, C. (2009). Understanding the psychological process underlying customer satisfaction and retention in a relational service. *Journal of Business Research*, 62, 1152-1159.
- Gustafsson, A. & Johnson, M.D. (2002). Measuring and managing the satisfaction-loyalty-performance links at Volvo. *Journal of Targeting, Measurement and Analysis*, 10(1), 4-15.
- Hadjikhani, A., & Thilenius, P. (2005). The impact of horizontal and vertical connections on relationships' commitment and trust. *Journal of Business & Industrial Marketing*. 20(3), 136-147.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2010). *Multivariate data analysis A global perspective*. (7th ed.). Printice Hall, New Jersey.
- Hallowell, R. (1996). The relationships of customer satisfaction, customer loyalty, and profitability: An empirical study. *International Journal of Service Industry Managements*, 7(4), 27-42.
- Helfert, G., & Gemunden, H.G. (1998). *Relationship marketing team design: a powerful predictor for relationship effectiveness*. ISBM Report, 6, Institute for the Study of Business Marketings, Pennsylvania State University, University Park, PA, USA.
- Heung, V.C.S., Wong, M.Y., & Qu, H. (2000). Airport-restaurant service quality in Hong Kong: An application of SERVQUAL. *Cornell Hotel and Restaurant Administration*, 3, 86-96.
- Hong, S.C., & Goo, J. (2004). A causal model of customer loyalty in professional service firms: An empirical study. *International Journal of Management*, 21(4), 531-540.
- Hoyer, W.D., & MacInnis, D.J. (2001). *Consumer Behaviour* (2<sup>nd</sup> ed.). Boston, Houghton Mifflin Company.
- Hsin, C., & Hsin-Wei, W. (2011). The moderating effect of customer perceived value on online shopping behavior. *Online Information Review*, 35(3), 333-359.
- Hsu, S.H. (2007). Developing an index for online customer satisfaction : adaptation of American Customer Satisfaction Index. *Expert Systems with Applications*, 34, 3033-3042.
- Hutchinson, F.L.J., Li, D., & Bai, C. (2005). An empirical assessment and application of SERVQUAL in mainland China's mobile communications industry. *International Journal of Quality & Reliability Management*, 24, 244-262.

- Inman, J.J., & Zeelenberg, M. (2002). Regret in repeat purchase versus switching decisions: The attenuating role of decision justifiability. *Journal of Consumer Research*, 29, 116-128.
- Inman, J.J., Dyer, S.S., & Jia, J. (1997). A generalized utility model of disappointment and regret effects on post-choice valuation. *Marketing Science*, 15, 97-111.
- Ismail, I., Haron, H., Ibrahim, D.N., & Isa, S.M. (2006). Service quality, client satisfaction and loyalty towards audit firms: Perceptions of Malaysian Public Listed Companies. *Managerial Auditing Journal*, 21, 738-756.
- Ittner, C., & Larcker, D. (1998). Are non-financial measures leading indicators of financial performance? An analysis of customer satisfaction. *Journal of Accounting Research*, 36(3), 1-36
- Jain, S.K. & Gupta, G. (2004). Measuring service quality: SERVQUAL vs. SERVPERF scale. *Vikalpa*, 29(20), 25-37.
- Judd, C.M. & Kenny, D.A. (1981). Process analysis: estimating mediation in treatment evaluations. *Evaluation Review*, 5(5), 602- 619.
- Kaiser, H.F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36
- Kang, H., & Bradley, G. (2002). Measuring the performance of IT services: An assessment of SERVQUAL. *International Journal of Accounting Information Systems*, 3, 151-164.
- Kaplan, R.S., & Norton, D.P. (1992). *The Balanced Scorecard: measurements that drive performance*. Harvard Business Review, 71-79.
- Kaplan, R.S., & Norton, D.P. (1996). *The Balanced Scorecard; translating strategy into action*. Boston, MA: Harvard Business School Press.
- Kassim, N., & Abdullah, N.A. (2010). The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings: a cross cultural analysis. *Asia Pacific Journal of Marketing*, 22(3), 351-371.
- Keng, K.A., & Liu, S. (1997). Personal values and complaint behavior. *Journal of Retailing and Consumer Services*, 4(2), 89-97.
- Kettinger, W., & Lee, C. (1997). Pragmatic perspectives on the measurement of information systems service quality. *MIS Quarterly*, 21(2), 223-240.
- Khan, I. (2012). Impact of customer satisfaction and customer retention on customer loyalty. *International Journal of Scientific & Technology Research*, 1(2), 106-110.
- Kim, D., & Kim, H. (2004). The comparison of online and offline purchases: a transaction cost perspective. *Journal of Distribution Research*, 9(1), 25-45.

- Kim, H.S., & Yoon, C.H. (2004). Determinants of subscriber churn and customer loyalty in the Korean mobile telephony market. *Telecommunications Policy*, 28, 751-765.
- Kim, W. & Han, H. (2008). Determinants of restaurant customers' loyalty intentions: a mediating effect of relationship quality. *Journal of Quality Assurance in Hospitality and Tourism*, 9(3), 219-239.
- Kish, J. (2000). Before your customer leave. *Bank Marketing*, 32(2), 30.
- Kittiprapas, S. (2002). Social impacts of financial and economic crisis in Thailand. *EADN Regional Project on the Social Impact of the Asian Financial Crisis*.
- Kline R.B. (2005). *Principles and Practice of Structural Equation Modelling* (2<sup>nd</sup> ed.). New York: Guilford Press.
- Kotler, P. (2000). *Marketing Management* (10<sup>th</sup> ed.). New Jersey, USA: Prentice-Hall.
- Kotler, P., & Armstrong, G. (2004). *Principle of Marketing* (10<sup>th</sup> ed.). New Jersey, USA: Prentice Hall.
- Kotler, P., & Armstrong, G. (2010). *The Principles of Marketing* (14<sup>th</sup> ed). Prentice Hall.
- Kotler, P., & Keller, K.L. (2006). *Marketing Management* (8<sup>rd</sup> ed.). Perarson Prentice Hall.
- Kumra, R. (2007). *Consumer Behavior*. Global Media.
- Kuo, N.T., Chang, K.C., Cheug, Y.S., & Lai, C.H. (2011). The impact of service quality, customer satisfaction and loyalty in the restaurant industry: moderating effect of perceived value. *Proceedings of the Quality and Relaiability ICQR-IEEE International Conference*, 551-555.
- Lai, F., Griffin, Ma., & Babin, B. (2009). How quality, value, image and satisfaction create loyalty at a Chinese telecom. *Journal of Business Research*, 62, 980-986.
- Lai, W.T. & Chen, C.F. (2010). Behavioral intentions of public transit passengers: the roles of service quality, perceived value, satisfaction and involvement. *Transport Policy*.
- Lam, R. & Burton, S. (2006). SME banking loyalty (and disloyalty): a qualitative study in Hong Kong. *International Journal of Bank Marketing*, 14(7), 12-20.
- Lee, M., & Cunningham, L.F. (2001). A cost/benefit approach to understanding service loyalty. *Journal of Service Marketing*, 15(2), 110-130.

- Leelataypin, K., Maluesri, P., & Punnakitikashem, P. (2011). Service quality assessment in public hospital in Bangkok using SERVQUAL model. *KMUTT Research and Development Journal*, 34(4), 444-456.
- Lewis, B.R., & Mitchell, V.W. (1990). Defining and measuring the quality of customer service. *Marketing Intelligence & Planning*, 8(6), 11-17.
- Liamprawat, J. (2009). Customers Satisfaction Towards Audit Service of Jesada CPA Office. *Master Thesis, Master of Business Administration, Chiang Mai University (in Thai)*.
- Liang, C.J., & Hou, L.C. (2007). A dynamic connection of Balanced Scorecard applied for the hotel. *Journal of Service Research*, 6, 91-118.
- Lilijander, V.Y., & Strandvik, T. (1997). Emotions in service satisfaction. *International Journal of Service, Industry Management*, 8(2), 148-169.
- Lim, C.Y., & Tan, H.T. (2010). Does auditor tenure improve audit quality? Moderating effects of industry specialization and fee dependence. *Contemporary Accounting Research*, 27(3), 923-957.
- Lin, H.H., & Wang, Y.S. (2006). An examination of the determinants of customer loyalty in mobile commerce contexts. *Information & Management*, 43, 271-282.
- Li-Wei, W. (2011). Satisfaction, inertia, and customer loyalty in the varying levels of the zone of tolerance and alternative attractiveness. *Journal of Service Marketing*, 25(5), 310-322.
- Lovelock, C., & Wirtz, J. (2007). *Services marketing people, technology, strategy* (6<sup>th</sup> ed.). Pearson Education International.
- Lu, O., Guo, X., & An, S. (2007). Driving factors behind consumer satisfaction: A comparative study on Chinese and foreign supermarket in China. *International Management Review*, 3, 45-56.
- Luo, X., & Bhattacharya, C.B. (2006). Corporate social responsibility, customer satisfaction, and market value. *Journal of Marketing*, 70, October, 1-18.
- Machleit, K.A., & Mantel, S.P. (2001). Emotional response and shopping satisfaction: Moderating effects of shopper attributions. *Journal of Business Research*, 54, 97-106.
- Majid, R. (2013). Customer trust as relationship mediation between customer satisfaction and loyalty at Bank Rakyat Indonesia (BRI) Southeast Sulawesi. *The International Journal of Engineering and Science (IJES)*, 2(5), 48-60.
- Maslow, A.H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-396.

- McMullan, R. & Gilmore, A. (2009) Customer loyalty: an empirical study, *European Journal of Marketing*, 42(3), 1084-1094.
- McQuitty, S., Finn, A., & Wiley, J.B. (2000). Systematically varying customer satisfaction and its implications for product choice. *Academy of Marketing Science Review*, 2000(10), 1-16.
- Mengi, P. (2009). Customer satisfaction with service quality: An empirical study of public and private sector banks. *The IUP Journal of Management Research*, 7(9), 7-17.
- Metzger, A.P., Butler, M., & Willenborg, M. (2004). An empirical analysis of auditor reporting and its association with abnormal accruals. *Journal of Accounting and Economics*, 37, 139-165.
- Moorman, C., Deshpande, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of Marketing*, 57(January), 81-101.
- Morgan, R.M. & Hunt, S.D. (1994). The Commitment-Trust Theory of relationship marketing. *Journal of Marketing*, 58(3), 20-38.
- Naeem, H., Akram, A., & Saif, M.L. (2009). Service quality and its impacts on customer satisfaction: empirical evidence from The Pakistani banking sector. *The International Business & Economics Research Journal*, 8(12), 99-104.
- Nair, S.R. (2009). *Consumer Behavior*. Global media.
- Ndubisi, N.O., Malhotra, N.K. & Chan, K.W. (2009). Relationship marketing customer satisfaction and loyalty: a theoretical and empirical analysis from an Asian perspective. *Journal of International Consumer Marketing*, 21(1), 5.
- Ndubisi, O.N. (2007). Relationship marketing and customer loyalty. *Marketing Intelligence & Planning*, 25(1), 98-106.
- Nunnally, J. C & Bernstein, I.H. (1994). *Psychometric Theory* (3<sup>rd</sup> ed). New York: McGraw-Hill.
- Nunnally, J. C (1978). *Psychometric Theor*. New York: McGraw-Hill
- Odin, Y., Odin, N., & Valette-Florence, P. (2001). Conceptual and operational aspects of brand loyalty: An empirical investigation. *Journal of Business Research*, 53(2), 75-84.
- Oliver, R.L. (1980). A cognitive model of the antecedents and consequences of satisfaction decision. *Journal of Marketing Research*, 17(11), 460-469.
- Oliver, R.L. (1997). *Satisfaction: A behavioral perspective on the consumer*. McGraw-Hill, New York, NY.
- Oliver, R.L. (1999). When consumer loyalty? *Journal of Marketing*. 63, 33-44.

- Omotayo, O., & Joachim, A.A. (2011). Service quality, value offer, satisfaction and loyalty: and empirical relationship in the Nigerian telecom industry. *The Journal Contemporary Management Research*, 5(2), 14-23.
- Parasuraman, A. & Grewal, D. (2000). The impact of technology on the quality-value-loyalty chain: A research agenda. *Journal of the Academy of Marketing Science*, 28(1), 168-175.
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1985). A conceptual model of service quality and its implication. *Journal of Marketing*, 49, 41-50.
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1986). SERVQUAL: A multiple-item scale for measuring customer perceptions of service quality. *Marketing Science Institute, Cambridge, MA*, 86-108.
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1988). SERVQUAL: A multiple-item scale for measuring customer perceptions of the service quality. *Journal of Retailing*, 64, 12-40.
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1990). *Delivering quality service*. The Free Press, New York, NY.
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1991). Refinement and reassessment of the SERVQUAL scale. *Journal of Retailing*, 67(4), 420-450.
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1994). Alternative scales for measuring service quality: A comparative assessment base on psychometric and diagnostic criteria. *Journal of Marketing*, 70(3), 21-30.
- Pavlou, P.A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 101-134.
- Pearson, N. (1996). Building brands directly; creating business value from customer relationships. *Macmillan Business*, 20 (6), 68-82.
- Peter, P. J., & Olson, J.C. (2010). *Consumer Behavior and Marketing Strategy*, (9<sup>th</sup> ed.) McGraw-Hill, New York: USA
- Petersen, K., Handfield, R., & Ragtag, G. (2005). Supplier integration into new product development: coordinating product, process and supply chain design. *Journal of Operations Management*, 23(2), 371-378.
- Praditvorakhun, S. (2003). The determinants of satisfaction with auditing: The perspective of audit clients and regulatory agencies. *Master Thesis, Faculty of Commerce and Accountancy, Chulalongkorn University*, ISBN: 974-17-4001-8 (in Thai).
- Pullman, M.E., & Gross, M.A. (2004). Ability of experience design elements to client emotions and loyalty behaviours. *Decision Sciences* 35 (3); 551-578.

- Ranaweera, C. & Prabhu, J. (2003). The influence of satisfaction, trust and switching barriers on customer retention in a continuous purchasing setting. *International Journal of Service Industry Management*, 14(4), 374-395.
- Reheul, A-M.R., Caneghem, T.V., & Verbruggen, S. (2013). Auditor performance, client satisfaction and client loyalty: evidence from Belgian non-profits. *International Journal of Auditing*, 17, 19-37.
- Reichheld, F.F., & Schefter, P., (2000), *E-Loyalty*, Harvard Business Review, 78(4), 105-113.
- Ribbink, D., van Riel, A.C.R., Lilijander, V. & Streukens, S. (2004). Comfort your online customer: quality, trust and loyalty on the internet. *Managing Service Quality*, 14(6), 446-456.
- Rod, M., Ashill, N.J., Shao, J., Shao & Carruthers, (2009). An examination of the relationship between service quality dimensions, overall internet banking service quality and customer satisfaction. *Marketing Intelligence & Planning*, 27(1), 103-126
- Rootman, C., (2006). *The influence of customer relationship management on the service quality of banks*. Nelson Mandela Metropolitan University.
- Rundle-Thiele, S., & Mackay, M.M. (2001). Assessing the performance of brand loyalty measures. *Journal of Service Marketing*, 15(7), 529-546.
- Rust R.T., Zahorik A.J., & Keiningham T.L. (1996). *Service Marketing*. HarperCollins College Publishers.
- Saha, G.C., & Thingy (2009). Service quality, satisfaction and behavior intentions: A study of low-cost airline carriers in Thailand. *Managing Service Quality*, 19(3), 350-272.
- Sancharan, R. (2011). Brand loyalty measurement made easy: a decision making framework. *Journal of International Marketing*.
- Saravanan, R., & Rao, K.S.P. (2007). The impact of total quality service age on quality and operational performance: An empirical study. *The TQM Magazine*, 19(3), 197-205.
- Saxby, C.L., Ehlen, C.R., & Koki, T.R. (2004). Service quality in accounting firms: The relationship of service quality to client satisfaction and firm/client conflict. *Journal of Business & Economics Research*, 2(11), 75-87.
- Schiffman, L.G., & Kink, L.L. (2004). *Consumer Behavior* (8<sup>th</sup> ed.). Pearson Prentice Hall.
- Schurr, P.H., & Ozanne, J.L. (1985). Influence on exchange processes: buyers' preconceptions of a seller's trustworthiness and bargaining roughness. *Journal of Consumer Research*, 11(4), 939-953.

- Sekaran, U. (2005). *Research methods for business*. India: John Wiley & Sons.
- Sekaran, U., & Bougie, R. (2010). *Research methods for business: A skill-building approach* (5<sup>th</sup> ed.). Chichester: John Wiley & Sons.
- Seto-Pamies, D. (2012). Customer loyalty to service providers: examining the role of service quality, customer satisfaction and trust. *Total Quality Management*, 23(11), 1257-1271.
- Shailer, G., Cummings, L., Vatuloka, E., & Welch, S. (2004). Discretionary pricing in a monopolistic audit market. *International Journal of Auditing*, 8, 263-277.
- Shankar, V., Amy, K. Smith, A.K., & Rangaswamy, A. (2003). Customer satisfaction and loyalty in online and offline environments. *International Journal of Reserch in Marketing*, 20, 153-175.
- Shpetiem, C. (2012). Exploring the relationships among service quality, satisfaction, trust and store loyalty among retail customers. *Journal of Competitiveness*, 4(4), 16-35.
- Singh, J., & Sirdeshmukh, D. (2000). Agency and trust mechanisms in customer satisfaction and loyalty judgments. *Journal of the Academy of Marketing Science*, 28(1), 150-167.
- Sittiphonvanichkun, J., & Phadungsit, M. (2007). The factors Thailand listed companies use in the auditor selection process. *Journal of Accountancy*, 3(7), 56-72.
- Solomon M., Bamossy G., Askegaard S., & Hogg, M. (2010). *Consumer Behaviour. A European perspective* (4th ed.). Prentice Hall Financial Times.
- Solomon, M. R., Marshall, G.W., & Stuart, E.W. (2009), *Marketing: Real People, Real Choices*, (6<sup>th</sup> ed.). Pearson Education, New Jersey: USA
- Sonsa-ardjit, P., & Vejaratpimol, R. (2010). Clients' perspectives toward audit service quality of the Big Four in Thailand. *University essay form Karlstads Universitet*.
- Soteriou, A.C., & Chase, R.B. (1998). Linking the customer contact model to service quality. *Journal of Operation Management*, 16, 495-508.
- Streiner, D.L. & Norman, G.R. (2008). *Health measurement scales: a practical guide to their development and use* (4<sup>th</sup> ed.). Oxford: Oxford University Press.
- Sumaedi, S., Bakti, G.M.Y., & Metasari, N. (2012). An empirical study of state university students' perceived service quality. *Quality Assurance in Education*, 20(2), 164-183.

- Szymanski, D.M., Henard, D.H. (2001). Customer satisfaction: a meta-analysis of the empirical evidence. *Journal of the Academy of Marketing Science*, 29(1), 16-35.
- Tabachnick, B.G., & Fidell, L.S. (2007). *Using Multivariate Statistics*, (5<sup>th</sup> ed.). Boston: Pearson Education, Inc.
- Tam, J.L-M. (2011). The moderating role of perceived risk in loyalty intentions: an investigation in a service context. *Marketing Intelligence & Planning*, 30(1), 33-52.
- Tantakasem, P., & Lee, S.M. (2007). Service quality and the customer satisfaction chain in the Thai retail banking industry. *Bangkok University, Thailand*, 1, 1-11.
- Tears, R.K. (1993), Expectations, performance evaluation and consumers perception of quality. *Journal of Marketing*, 57, (18-34).
- Thompson, N.J. & Thompson, K.E. (2003). Can marketing practice keep up with Europe's ageing population? *European Journal of Marketing*, 43(11/12), 1281-1288.
- Thomson, J. (2009). Trust is customer relationship: addressing the impediments in research. *Proceedings of Asia-Pacific Conference on Advances in Consumer Research*, 346-349.
- Tianxiang, S. & Chunlin, L. (2010). An empirical study on the effect of e-service quality on online customer satisfaction and loyalty. *Nankai Business Review International*, 1(3), 273-283.
- Trasorras, R., Weinstein, A., & Abratt, R. (2009). Value, satisfaction, loyalty and retention in professional services. *Marketing Intelligence & Planning*, 77 (5), 615-632.
- Tsoukatos, E. & Rand, G. (2006). Path analysis of perceived service, satisfaction and loyalty in Greek insurance. *Managing Service Quality*, 5(1), 501-519.
- Tsuji, Y., Bennett, G., & Zhang, J. (2007). Consumer satisfaction with an action sports event. *Sport Marketing Quarterly*, 16, 199-208.
- Turk, Z., & Avcilar, M.V. (2009). The effects of perceived service quality of audit firms on satisfaction and behavioural intentions: A research on the Istanbul Stock Exchange Listed Companies. *Research Journal of Business Management*, 3, 36-46.
- Tutton, G. (2007). *Customers satisfaction versus loyalty*. Retrieved from the Wise Marketer, <http://www.thewisemarketer.co/features/read.asp?id=110>
- Vagias, W.M. (2006). *Likert-type scale response anchors*. Clemson International Institute for Tourism & Research Development, Department of Parks, Recreation and Tourism Management. Clemson University.

- Vuuren, T., Robert-Lombard, M., & Tonder, E. (2012). Customer satisfaction, trust and commitment as predictors of customer loyalty within an optometric practice environment. *Southern African Business Review*, 16(3), 81-96.
- Walsh, G., Evanschitzky, H., & Wunderlich, M. (2007). Identification and analysis of moderator variables Investigating the customer satisfaction-loyalty link. *European Journal of Marketing*, 42(9/10), 977-1004.
- Walter, A., Mueller, T.A., Helfert, G., & Wilson, D.T. (2002). *Delivering relationship value: key determinant for customers' commitment*. Retrived March 4, 2004 from [www.smeal.psu.edu/isbm/database.html](http://www.smeal.psu.edu/isbm/database.html).
- Walter, A., Thilo, A., & Helfert, G. (2002). *The impact of satisfaction, trust and relationship value on commitment: theoretical considerations and empirical results*. Unpublished working paper.
- Weekes, D.J., Scott, M.E., & Tidwell, P.M. (1996). Measuring quality and client satisfaction in professional business services. *Journal of Professional Service Marketing*, 14(2), 25-37.
- Westbrook R.A. (2000). Towards a managerial research agenda for customer satisfaction. *Journal on Consumer Dissatisfaction and Complaining Behavior*, 13, 17-25
- Westbrook R.A., Newman J.W., & Taylor J.R. (1978). Satisfaction/Dissatisfaction in the purchase decision process. *Journal of Marketing*, October, 54-60.
- Wilson, D.T. (1995). An integrated model of buyer-seller relationships. *Journal of the Academy of Marketing Science*, 23(4), 335-345.
- Wilson, R., & Al-Zaabi, O.S. (2006). Service quality and financial performance: An empirical study of Islamic banks in the UAE. *Journal of Social Affairs*, 23(91), 13-22.
- Winter, G. (2000). A comparative discussion of the notion of validity in qualitative and quantitative research. *The Qualitative Report*, 4 (3-4).
- Xu, Y., Goedegebuure, R. & Heijden, B. (2006). Customer perception, customer satisfaction, and customer loyalty within Chinese securities business; towards a mediation model for predicting customer behavior. *Journal of Relationship Marking*, 4(1), 79-104.
- Yang, Z. & Peterson, R.T. (2004). Customer perceived value, satisfaction, and loyalty: the role of switching costs. *Psychology & Marketing*, 21(10), 799-822.
- Yap, B.W., Ramayah, T., & Shahidan, W.N.W. (2012), Satisfaction and trust on customer loyalty: a PLS approach. *Business Strategy Series*, 19(4), 154-167.

- Yieh, K., Chiau, Y., & Chiu, Y. (2007). Understanding the antecedents to customer loyalty by applying structural equation modeling. *Total Quality Management and Business Excellence*, 16(6), 267-284.
- Yoo, D.K., & Park, J.A. (2007). Perceived service quality: Analyzing relationships among employees, customers, and financial performance. *International Journal of Quality & Reliability Management*, 24/9, 908-926.
- Yoon, S.J., & Kim, J.H. (2000). An empirical validation of a loyalty model based on expectation and disconfirmation. *Journal of Consumer Marketing*, 17, 120-136.
- Yu, Y., & Dean, A. (2001). The contribution of emotional satisfaction to consumer loyalty. *International Journal of Service Industry Management*, 12(3), 234-250.
- Zeelenberg, M., & Pieters, R. (1999). On service delivery that might have been: Behavioral responses to disappointment and regret. *Journal of Service Research*, 2, 86-97.
- Zeelenberg, M., Van-Dijk, W.W., & Manstead, A.S.R. (2000). Regret and responsibility resolved? Evaluating ordonez and connolly's (2000) conclusion. *Organizational Behaviour and Human Decision Processes*, 81, 143-154.
- Zeithaml, V., Berry, L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 6(2), 31-47.
- Zeithaml, V., Parasuraman, A., & Berry, L.L. (1990). *Delivering quality service: Balancing customer perceptions and expectations*. Free Press, New York, N.Y.
- Zikmund, W.G. (2003). *Business research method* (7<sup>th</sup> ed.). Kentucky: Thomson Southwestern.