


CLIENT AND PHARMACIST PERCEPTIONS ABOUT COMMUNITY PHARMACY
SERVICE QUALITY



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การวิจัยนี้มีวัตถุประสงค์เพื่อเปรียบเทียบการรับรู้คุณภาพงานบริการเภสัชกรรมชุมชนในมุมมอง
ของผู้รับบริการและเภสัชกร และประเมินคุณภาพงานบริการเภสัชกรรมชุมชนในมุมมองของผู้รับบริการ
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คุณภาพงานบริการเภสัชกรรมชุมชน

เครื่องมือที่ใช้เก็บข้อมูลปรับปรุงและพัฒนาจากแบบสอบถาม SERVQUAL ซึ่งแบบสอบถามมี
จำนวนคำถาม 28 ข้อ ใน 6 องค์ประกอบของงานบริการเภสัชกรรมชุมชน ได้แก่ ความเป็นรูปธรรมของ
บริการ จำนวน 5 ข้อ ความมั่นใจต่อบริการ จำนวน 5 ข้อ ความเชื่อถือไว้วางใจ จำนวน 2 ข้อ การตอบสนอง
ต่อผู้รับบริการ จำนวน 6 ข้อ ความเข้าใจและเห็นใจผู้รับบริการ จำนวน 7 ข้อ และการติดต่อสื่อสารกับ
ผู้รับบริการ จำนวน 3 ข้อ ทำการเก็บข้อมูลจากเภสัชกรและผู้รับบริการที่มาใช้บริการเภสัชกรรมชุมชน ใน
จังหวัดกรุงเทพมหานครฯ นนทบุรี ปทุมธานี และสมุทรปราการ โดยหน่วยวิเคราะห์คือจุดให้คำปรึกษา
ระหว่างเภสัชกรและผู้มารับบริการ ผลการศึกษาพบว่ามีความแตกต่างอย่างมีนัยสำคัญของการรับรู้คุณภาพ
งานบริการเภสัชกรรมชุมชน ในมุมมองของผู้รับบริการและเภสัชกร ในองค์ประกอบของความเป็นรูปธรรม
ของบริการ ความเชื่อถือไว้วางใจ ความมั่นใจต่อบริการ และการติดต่อสื่อสารกับผู้รับบริการ

ในองค์ประกอบของความเป็นรูปธรรมของบริการ ความมั่นใจต่อบริการ ความเชื่อถือไว้วางใจ
การตอบสนองต่อผู้รับบริการ ความเข้าใจและเห็นใจผู้รับบริการ และการติดต่อสื่อสารกับผู้รับบริการ
ผู้รับบริการมีความคาดหวังต่องานบริการเภสัชกรรมชุมชน ตามลำดับดังต่อไปนี้ 8.46 9.06 9.39 9.15 8.76
และ 8.98 จากคะแนนเต็ม 10 ในขณะที่ประเมินค่าการรับรู้คุณภาพงานบริการเภสัชกรรมชุมชน ตามลำดับ
ดังต่อไปนี้ 7.7 8.38 8.47 8.7 8.26 และ 8.58 จากคะแนนเต็ม 10 ทำให้เมื่อคำนวณหาคุณภาพงานบริการ
เภสัชกรรมชุมชนในมุมมองของผู้รับบริการโดยใช้ทฤษฎีแบบจำลองวิเคราะห์ช่องว่าง จึงได้ค่าที่คิดลบ
ดังต่อไปนี้ -0.76สำหรับความเป็นรูปธรรมของบริการ -0.92สำหรับความเชื่อถือไว้วางใจ -0.45สำหรับ
การตอบสนองต่อผู้รับบริการ -0.68สำหรับความมั่นใจต่อบริการ -0.5สำหรับความเข้าใจและเห็นใจผู้รับบริการ
และ-0.4สำหรับการติดต่อสื่อสารกับผู้รับบริการ จึงดูเหมือนว่า ผู้รับบริการไม่พึงพอใจต่อคุณภาพงาน
บริการในทุกองค์ประกอบเนื่องจากการรับรู้คุณภาพยังต่ำกว่าความคาดหวัง ผลการศึกษานี้มีข้อเสนอแนะ
โดยให้ปรับปรุงคุณภาพงานบริการเภสัชกรรมชุมชนเพิ่มขึ้น เพื่อให้ได้ถึงระดับความพึงพอใจจาก
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สาขาวิชาเภสัชศาสตร์สังคมและบริหาร(นานาชาติ) ลายมือชื่อนิสิต.....
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This study aimed to compare client and pharmacist evaluations on community pharmacy service quality, and to identify client perceived service quality of community pharmacy service by using Gap Model as a theoretical framework. Client-pharmacist encounter was a unit of analysis. Community pharmacies in Bangkok, Samuthprakan, Prathumthani, and Nonthaburi province, Thailand, were included as a sample of the current study. The questionnaire included six dimensions of the community pharmacy services which were tangibles (5 items), assurance (5 items), reliability (2 items), responsiveness (6 items), empathy (7 items) and communication (3 items). Clients were asked to identify their expectation levels of pharmacy services and evaluate pharmacist's service performance and pharmacists also were asked to self-evaluate their service performance immediately at the counter after target client encountering with pharmacist using an 11 point scale. Client perceived service quality of community pharmacy service was calculated by the different score between client desired service expectation level and client evaluation on community pharmacy service performance. The results showed that mean scores of client evaluation on pharmacist service quality on tangibles, assurance, reliability, responsiveness, empathy, and communication were 7.7, 8.38, 8.47, 8.7, 8.26 and 8.58, respectively. There was significant discrepancy between pharmacist and client evaluations on community pharmacy service quality in tangibles, assurance, reliability, and communication dimension. In terms of tangibles, assurance, reliability, responsiveness, empathy, and communication, the mean scores of client desired expectation were 8.46, 9.06, 9.39, 9.15, 8.76 and 8.98, respectively. Using gap analysis, the mean scores of client perceived service quality on tangibles, assurance, reliability, responsiveness, empathy, and communication were -0.76, -0.68, -0.92, -0.45, -0.5 and -0.4, respectively which meant that client dissatisfied with all dimensions of community pharmacy services.

Therefore, the policy maker, pharmacist and owner should realize that client evaluation on pharmacist service quality appeared never exceed client desired expectation level in order to better tailor its marketing effort to ensure client expectations are met. They should consider client and pharmacist evaluation discrepancy information as well before designing any strategy to gain satisfaction from clients.

Field of study Social and Administrative Pharmacy. Student's signature.....

Academic year 2004

Advisor's signature.....

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CHAPTER I

INTRODUCTION

The quality of services and goods has become increasingly recognized as a strategic variable in achieving efficiency as well as effectiveness in business operations (Babakus and Boller, 1992). Like many other businesses, community pharmacies are striving to deliver not only quantity of products and services but also high quality and satisfaction that will lead to increasing customer's loyalty and profit.

Over the past decade, numerous studies have been publicized within both the private and public sectors in the hope of improving processes and services from the perspective of the client. Measurement of client evaluation of service quality is necessary indicators to evaluate the service quality. However, the recognition of differing perspectives is an important and relevant topic of concern in service quality management. When the diverse perspectives of the provider and client are not considered and compared, the organization lacks vital information to use in putting together the service quality puzzle. Consideration must, therefore, be given to the perspectives of two critical stakeholders: those individuals who provide services and those who consume the services.

Many studies have been conducted about quality, expectations, evaluations and satisfactions from service provider or receiver perspectives in many industries including health services (i.e., public and private hospitals, etc.). However, there is no comparative study of client and pharmacist evaluations of community pharmacy service quality.

This study measured the quality of community pharmacy services from the perspectives of both clients and pharmacists to see whether or not there were differences in service quality evaluations amongst pharmacists and clients of community pharmacies and if differences existed, what the nature of these differences were.

In these days of increasing complexity of multidisciplinary health services, rapid growth of health care technologies and improvement of the quality of health care have become issues of primary concern. Patient views and judgments on health care services are a vital part of quality improvement in health care. Studies on the quality of care are often formulated by managers or health professionals or patients separately. However, patient views on the quality of health care differ from those of the health care professional, manager, and policy maker. Few studies are formulated to compare the assessment of quality of care by health care providers and receivers.

Therefore, examining the perspectives of the care provider (pharmacist) and care receiver (client) relative to the community pharmacy service quality will give an insight into the design and evaluation of programs to improve client service.

Purposes of Research

The purpose of this study was to determine the extent of the discrepancy between the client and pharmacist evaluations on community pharmacy service quality. Moreover, the purposes of this study were also to identify client expectations of the community pharmacy service quality by focusing on the desired, adequate service level and the zone of tolerance of each dimension of the pharmacy service.

Specific Objectives

1. To determine client evaluation on community pharmacy service quality.
2. To determine pharmacist evaluation on community pharmacy service quality.
3. To compare client and pharmacist evaluations on community pharmacy service quality.
4. To identify client perceived service quality of community pharmacy service.
5. To identify client expectation of community pharmacy service quality by focusing on
 - Desired level of expectation
 - Adequate level of expectation
 - The zone of tolerance of expectation

Research Questions

1. What was the extent of client evaluation on community pharmacy service quality?
2. What was the extent of pharmacist evaluation on community pharmacy service quality?
3. What were the discrepancy dimensions and the extent of the differences between client evaluation and pharmacist evaluation on community pharmacy service quality?
4. What was the extent of discrepancies between client desired expectation and client evaluation on community pharmacy service quality?
5. What was the extent of client desired expectation about each dimension of community pharmacy service quality?
6. What was the extent of client adequate expectation about each dimension of community pharmacy service quality?
7. What was the extent of client zone of tolerance of each dimension of community pharmacy service quality?

Research Hypothesis:

1. Client perception of pharmacist service performance was at the same level as of pharmacist evaluation of his /her own service performance.
2. Importance perception on community pharmacy service dimension from client perspective was at the same level as from pharmacist perspective.

Significance of the Study

Few concepts are more important or elusive than “quality” in the current environment of health care services. Quality information is important to client and provider alike. However, the essential elements of “quality” may be understood in quite different ways and ranked with different priorities among various health care receivers and providers.

Specifically, this study examined whether or not there were differences in service quality evaluations between the client and pharmacist concerning the community pharmacy services. Understanding the differences of both evaluations would be beneficial for policy makers, pharmacists, owners and etc. to design the strategy to improve client service.

Identifying client expectations and evaluations of community pharmacy service quality allows policy makers, pharmacists, owners and etc. to better tailor its marketing effort to ensure client expectations are met. This includes identifying, prioritizing and improving areas of service weakness and ensuring that valuable resources are allocated in the most effective areas. In addition, messages can be refined so that the client has a realistic expectation of the service offered.

The SERVQUAL instrument helps identifying the strengths and weaknesses of each dimension of the community pharmacy service. Knowledge of these strengths and weaknesses will allow community pharmacies to direct their scarce resources to improving weak service dimensions and to refining their marketing efforts so that client expectations are met by the service delivered.

Actually, clients have many service requirements and that service requirements are not all equally important. Therefore, this study also examined the important level of each dimension of the pharmacy service from the client perspective.

One of the most common mistakes that managers make in trying to improve service is spending resources on the wrong initiatives. That is why the service does not improve. Thus, knowing how much importance the client places on each dimension of the pharmacy service is valuable for developing and achieving an improvement in the quality of service. Measuring the relative importance of the service dimensions of the pharmacy service helps policy makers, pharmacists, owners and etc. to channel resources effectively by focusing on the priorities of the client.

Therefore, an understanding is needed of the client and pharmacist evaluations, the difference of both evaluations, the desired and adequate service, the zone of tolerance of expectation, and the importance rate of the client about the pharmacy service. This would be beneficial to policy makers, pharmacists, owners and etc. to understand the characteristics of the community pharmacy service and to have information to design the strategy to improve pharmacy service quality.

The current study focused on six dimensions of community pharmacy service which were reliability, tangibles, assurance, empathy, responsiveness and communication. Clients were asked to evaluate pharmacist service performance, and identify the level of desired and adequate service expectations on an 11-point scale toward each dimension and item of community pharmacy service. The gap between the two levels of service expectations was calculated to gain the zone of tolerance of client. The GAP model was used as a theoretical framework to identify client perceived service quality of community pharmacy service. Client perceived service quality was evaluated by subtracting pharmacist performance score with client desire expectation score.

Pharmacists were asked to measure their evaluation of their service performance on an 11-point scale toward each dimension and item of community pharmacy service. Pharmacist performance scores from client and pharmacist perspectives were analyzed by using paired t-test statistical method to find out the significant discrepancy between client and pharmacist perceptions about community pharmacy service.

Definition of Terms

In this study, expectations were operationalized as Zeithaml, Berry, and Parasuraman (1993) suggested in the SERVQUAL model. This study identified client expectations about community pharmacy service quality by focusing on the desired, adequate service level, and the zone of tolerance of each dimension of pharmacy service.

Desired service - is the type of service the client hopes to receive from the community pharmacy. It is a combination of what clients believe can be and should be delivered in the context of their personal needs. However, most clients are realistic and understand that the community pharmacy can not always deliver the level of service they would prefer. Hence, they also have a threshold level of service clients will accept without being dissatisfied called the **zone of tolerance**.

From figure 1.1, the lowest level is the service minimal level of adequacy that a client is willing to accept called **adequate service expectation**.

Desired Service Expectation
Zone of Tolerance of Expectation
Adequate Service Expectation

Figure 1.1: Levels of Expectation

In addition, this study determined the client **perceived service quality** by calculating the extent of the discrepancy between client desired service expectation and the evaluation of each dimension of the community pharmacy service.

Performance Evaluation was identified as the extent to which a client actually perceived a performance of community pharmacy service.

Service dimensions in this study included six dimensions of the community pharmacy service consisting of reliability, tangibles, assurance, empathy, responsiveness and communication.

Reliability was determined as the ability to perform the promised service dependably and accurately. In this study, reliability meant that the community pharmacy delivered on its promises- promises about service, time, and problem resolution.

Tangibles was represented the service physically. In this study, the appearance of the pharmacist, the equipment and service time of pharmacist were used to evaluate the tangibles dimension of community pharmacy service.

Assurance was defined as the pharmacist's knowledge and courtesy and the ability to inspire client trust and confidence.

Empathy included the attention and understanding of the client needs.

Responsiveness was the willingness to help the client and provided a prompt service. This dimension emphasized attentiveness and promptness in dealing with client requests, questions and problems.

Communication was determined as keeping the client informed with clear and adequate information in a language that was easy to understand.

This study aimed to determine **perception discrepancy** between client and pharmacist evaluations of community pharmacy service quality. Pharmacist performance scores from client and pharmacist perspectives were analyzed by using paired t-test statistical method to find out the discrepancy dimensions and the extent of the differences between client and pharmacist perceptions about community pharmacy service.

In addition, this study analyzed **importance discrepancy** between client and pharmacist perceptions about the importance of community pharmacy service dimensions. Importance scores from client and pharmacist perspectives were analyzed by using paired t-test statistical method to find out the importance discrepancy between client and pharmacist perceptions about community pharmacy service dimensions.

CHAPTER II

LITERATURE REVIEW

Theoretical Background

The conceptualization and measurement of the service quality construct has been dominated by the use of the SERVQUAL scale introduced by Parasuraman, Zeithaml, and Berry (1988). Their measurement of service quality proposed a gap-based comparison of the expectations and performance perceptions of consumers. This measurement paradigm is similar to the disconfirmation model traditionally used to assess consumer satisfaction (Cronin, 1992, 1994; Parasuraman, Zeithaml, and Berry, 1988; Teas, 1993, 1994).

It appears that the theoretical “inspiration” for the service quality model (Parasuraman, Zeithaml, and Berry, 1988) was the expectancy/disconfirmation paradigm in process theory (Boulding, Kalra, Staelin, and Zeithaml, 1993). This framework provided the grounding for the vast majority of satisfaction studies and encompassed four constructs: expectations, performance, disconfirmation, and satisfaction. Disconfirmation arises from discrepancies between prior expectations and perceived actual performance. There are three possibilities: zero disconfirmation which can occur when a product performs as expected; positive disconfirmation with resultant satisfaction which can occur when the product performs better than expected; and negative disconfirmation when the product performs below expectations and dissatisfaction sets in.

SERVQUAL was built on the theory that service quality is the gap between what customers expect and what performance they actually perceive. Service quality is calculated with SERVQUAL by subtracting expectation scores from perceived performance scores. The instrument invites consumers to indicate the extent to which they agree with a series of statements which are designed to measure those elements of a service which consumers would expect as ideal; the expectations score, and then those elements of a service that they have recently experienced; the perception score (Zeithaml and Bitner, 1996). Service quality is indicated by the arithmetic ‘gap’ between pre-purchase expectations and post-purchase perceptions of company performance (Oh, 1999). The SERVQUAL survey instrument is one of the preeminent instruments for measuring the quality of services as perceived by the customer (Van Dyke, Prybutok, and Kappleman, 1999).

Service Quality

Service organizations that consistently deliver high quality services to clients can expect higher returns on investment and to grow faster than those service organizations that do not. Leading service providers see quality as a strategic tool. By delivering excellent quality these companies receive benefits including increased growth through improved customer retention and increased customer acquisition. Some firms have focused on consumers’ perceptions of the quality of cumulative

episodes with service providers as a way to create long-term relationships with loyal customers (Schommer, 2000).

But service quality has proved an elusive and indistinct construct which is difficult to delimit and to measure. Three characteristics of service contribute to this difficulty: service intangibility, performance heterogeneity, and customer-producer inseparability (Lovelock, 2001). These have implications for service quality, in particular, service quality is more difficult for consumers to evaluate than product quality and evaluations may be made not only on output but also on the delivery process.

Babakus and Boller (1992) cited many studies and found the difference of service quality definition. Lehtinen and Lehtinen defined service quality as a 3-dimensional construct consisting of “interactive,” “physical,” and “corporate” quality dimensions. Gronroos (1984), on the other hand, conceptualized service quality with 2 distinct components consisting of technical and functional quality. Technical quality refers to the quality of the service (the core service provided), whereas functional quality refers to the quality of the manner in which the service is delivered (how the service provided). A recent study provides yet another conceptualization with 2-dimensions referred to as “willingness and ability to serve” and “physical and psychological access.” Parasuraman, Zeithaml, and Berry (1988) view service quality as the gap between consumers’ expectations and their perceptions of the actual service. They view expectations as desires or wants relating to what the consumer feels the service provider should offer rather than what he would offer.

Service Quality Measurement

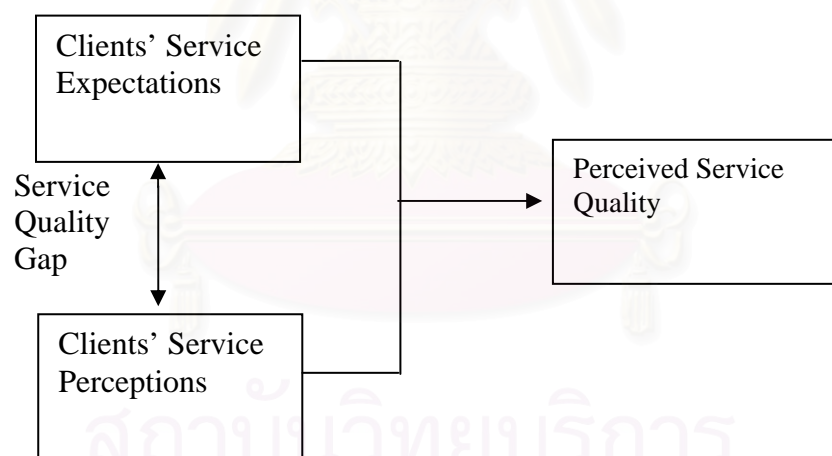
An understanding of the characteristic of service is necessary in the selection of an appropriate instrument to measure service quality. Such an instrument needs to accommodate the difficulties raised above and to recognize that the quality of services is more difficult for customers to evaluate than the quality of goods, that quality assessments are made not only on the service outcome, but also on the process of service delivery and that perceptions of quality result from comparisons of actual performance with the customer’s prior expectations (Parasuraman, 1985). Lee and Hing (1995) cited many studies and found that many scholars concurred that service quality can be measured by comparing the expectations of patrons with their perception of the actual service performance. Indeed, well-known scholars in this area have developed models of service quality based on this concept. Lytle and Mokwa (1992) maintain that service quality depends on two variables; expected service and perceived service. They further stated that “A health care service product is a bundle of tangible benefits that satisfy patients needs and wants.”

Perceived Service Quality

Perceived service quality can be defined as a global judgement or attitude relating to the superiority of a given service (Parasuraman, Zeithaml, and Berry, 1988).

The distinctive nature of services requires an equally distinctive approach to defining and measuring service quality. Because of the intangible nature of many services, it may be harder to evaluate the quality of a service than a good. Because customers are often involved in service production – particularly in people-processing services – a distinction needs to be drawn between the process of service delivery and the actual output of the service. Gronroos (1984) defined service quality as ‘the outcome of an evaluation process where the consumer compares his expectations with the service he perceived he has received.’ In other words, perceived service is measured against expected service. Gronroos (1990) also suggested that the *perceived quality* of a service will be the result of an evaluation process in which customers compare their perceptions of service delivery and its outcome against what they expected (Lovelock, 2001).

The following model shows the extent of discrepancy between clients’ expectancy or desires and their perceptions.



The Meaning of Perceived Service Quality

Expectations are exceeded when “Expectation Scores” are less than “Perception Scores” resulting in a “Quality Surprise.”

Expectations are met if the “Expectation Scores” equal the “Perception Scores” resulting in “Satisfactory Quality.”

Expectations are not met if “Expectation Scores” are greater than “Perception Scores” resulting in “Unacceptable Quality.”

Service Quality Dimensions

Many service researchers suggested that customers did not perceive quality in a unidimensional way, but rather judged quality based on multiple factors relevant to the context (Zeithaml and Bitner, 1996).

The generic dimensions used by customers to evaluate service quality are as follows (Lovelock, 1991):

Credibility: trustworthiness, believability and honesty of the service provider

Security: freedom from danger, risk or doubt

Access: approachability and ease of contact

Communication: listening to customers and keeping them informed in a language they can understand

Understanding the customer: making the effort to know customers and their needs

Tangibles: appearance of physical facilities, equipment, personnel, and communication materials

Reliability: ability to perform the promised service dependably and accurately

Responsiveness: willingness to help customers and provide prompt service

Competence: possession of the skills and knowledge required to perform the service

Courtesy: politeness, respect, consideration, and friendliness of contact personnel

All of these dimensions represent how consumers organize information about service quality in their minds. Sometimes customers will use all of the dimensions to determine service quality perceptions, at other times not.

However, the most extensive research into service quality was the research of Parasuraman, Zeithaml, and Berry (1988). They found a high degree of correlation between several of these variables and so consolidated them into five broad dimensions that applied across a variety of service contexts: reliability, responsiveness, assurance, empathy and tangibles.

Their definitions of the five dimensions of service quality were as follows:

Reliability - Delivering on Promises: The ability to perform the promised service dependably and accurately.

Of the five dimensions, reliability was consistently shown to be the most important determinant of perceptions of service quality among U.S. customers (Zeithaml and Bitner, 1996).

In the broadest sense, reliability meant that the company delivered on its promises – promises about delivery, service provision, problem resolution, and pricing. Customers wanted to do business with companies that kept their promises, particularly their promises about the service outcomes and core service attributes.

Responsiveness - Being Willing to Help: Willingness to help customers and provide prompt service.

This dimension emphasized attentiveness and promptness in dealing with customer requests, questions, complaints, and problems. Responsiveness was communicated to customers by the length of time they had to wait for assistance, answers to questions, or attention to problems. Responsiveness also captured the notion of flexibility and the ability to customize the service to customer needs.

Assurance - Inspiring Trust and Confidence: Employees' knowledge and courtesy and their ability to inspire trust and confidence.

This dimension was particularly important for services that the customer perceived as involving high risk and/or about which they felt uncertain about their ability to evaluate outcomes – for example, medical service.

Empathy - Treating Customers as Individuals: Caring, individualized attention given to customers.

The essence of empathy was conveyed, through personalized or customized service, that customers were unique and special. Customers wanted to feel understood by and important to firms that provided a service to them.

Tangibles - Representing the Service Physically: Appearance of physical facilities, equipment, personnel, and communication materials.

All of these provided physical representations or images of the service that customers, particularly new customers, used to evaluate quality.

Health Service Quality and Dimensions

This section reviewed service quality concepts and dimensions of service in the health care arena. Actually, service quality has been perhaps the most explored topic in service marketing. Past research has linked service quality to a firm's performance, customer satisfaction, and purchase intention. Patient perception of service quality is a key determinant of a health care organization's success due to its primary role in achieving patient satisfaction and hospital profitability (Choi, Cho, Lee et al., 2002).

Service quality also has most often been defined in terms of customer perceptions. Hence, most of the operational definitions or conceptual frameworks that have been suggested for service quality are based on marketing concepts (Gronroos, 1984). Berry, Zeithaml, and Parasuraman (1985) divided service quality into two components: outcome and process.

However, some issues regarding outcome assessments of health care are raised to be considered, such as who determines the quality of services. Moreover, most patients lack sufficient expertise and skills to evaluate whether the delivered medical service was performed properly or was even necessary. As a consequence, consumers rely greatly on nontechnical process-related dimensions such as the patient-practitioner relationship and/or the surroundings of the service encounter in evaluating service quality.

In the health-care environment, technical quality indicators can be defined by factors such as average length of stay, readmission rates, infection rates and outcome measures (Gronroos, 1984; Babakus and Mangold, 1992). On the other hand, functional quality can be defined by factors such as doctors' and nurses' attitudes towards patients, cleanliness of facilities, and the quality of hospital food.

According to Donabedian (1980), quality was an attribute that the technical and interpersonal aspects of medical care manifested in varying degrees (Zeithaml and Bitner, 1996). Donabedian provided criteria for what constituted "good care," using the framework of structure (related to physical environment and facilities), process (related to interaction with service personnel) and outcome (the result of the interaction).

Donabedian developed seven attributes of health care quality which were efficacy, effectiveness, acceptability, efficiency, legitimacy, optimality, and equity. Efficacy was used as a benchmark for a particular diagnosis. Ordinary medicine, or the industry average was used to measure the effectiveness of health care quality. Identifying the acceptability by considering the adaptation of care to the wishes, expectations and values of patients and their families. A measure of cost, or at least costly of two identically effective treatments was used to identify the efficiency of health care quality. The legitimacy was decided by concerning the community's view of care. The cost-benefit evaluation, or the point at which further resources did not add benefit was used to identify the optimality of health care quality. The equity was based on the principle by which one determined what is just or fair in the distribution of care and its benefits among the members of a population.

From literature review, the weight of research findings certainly supports a multidimensional nature of patients' attitudes about medical care. However, there is no general agreement about the exact nature or number of dimensions.

Jun, Peterson, and Zsidisin (1998) conducted focus groups consisting of patients, administrators and physicians. They identified eight dimensions of health care service according to Parasuraman et al. model as follows: tangibles including the physical environment and cleanliness, reliability, responsiveness, competence, courtesy, communication, access and understanding the customer. They encompassed the concepts of teamwork and the synergistic effect of various actors in providing

health care. It was the co-mingling of the roles of all members of the health care team, including payers, physicians, patients, family members, and members of the community that defined health care quality from the patient's viewpoint. Thus, they added the other two following dimensions; collaboration and communication.

Bowers, Swan, and Koehler (1994) added the following dimensions to determine health care service quality: caring including personal, human involvement and patient outcomes including relief from pain, saving of life and anger or disappointment after medical intervention.

Qatari and Haran (1999) used the eight dimensions that fitted nearly into Donabedian's structure, process, outcome, and model of quality of health care. The eight dimensions were as follows: communication including explanation and doctor-patient interaction, physical surroundings, consultation time, waiting area environment and privacy, staff attitude, activities and procedures, outcome of care and waiting time.

Swedish researchers developed a reliable and valid instrument to determine the predictors of patients' ratings of quality of hospital care (Arnetz and Arnetz, 1996). Significant predictors of quality ratings were as follows: communication concerning information about ones' illness and the tangible perceptions of the staff work environment.

Andaleeb (2001) used the instrument of SERVQUAL with five dimensions to evaluate the service quality of hospitals in Bangladesh. All items of five dimensions were as follows:

Responsiveness - The staff were caring and courteous and hospital staff were helpful. The staffs were responsive to patient needs and responded immediately when called. Services provided were prompt.

Assurance - The hospital had skilled professional staff, the nurses were well-trained and the doctors were competent. Services were provided efficiently and medical procedures were performed correctly the first time.

Communication – Patients received adequate explanation of any tests they had to undergo and the doctors were willing to answer any questions. Patients were given adequate information on their treatment and on their health condition which was monitored regularly.

Discipline - Toilet facilities were clean, cabin/wards were regularly cleaned. The staffs were disciplined and had a clean appearance. Cleanliness was maintained throughout the facility and rules and regulations were strictly maintained.

Baksheesh - Services were not provided properly without tips and hospital staff expected tips.

Raju and Lonial (2002) used five dimensions to evaluate the service quality of hospitals in a five-state region; Kentucky, Minnesota, Mississippi, Ohio, and

Tennessee. Five of the eight dimensions were chosen from the study of Benson, Saraph, and Schroeder. Three variables; company size, company type, and manager type, were excluded since they related only indirectly to quality of care. The five dimensions were managerial knowledge, corporate support for quality, marketplace environment, product/process environment and past quality performance.

Choi, Cho, Lee et al. (2002) used the instrument of SERVQUAL with four dimensions to evaluate the service quality of hospitals in South Korean. The items of the four dimensions were as follows:

Convenience of Care Process - The process for setting up the appointment was simple and easy. The patient did not have to wait long for the medical examination from the physician. The procedure to get the lab test was convenient and the lab test was done in a prompt way. The payment procedure was quick and simple.

Health Care Providers' Concern - The nurses were friendly and explained the medication process well. The care providers seemed to try to help the patient as much as they could and truly cared for them. There was good coordination among the care providers.

Physician's Concern - The physician was polite, made the patient feel comfortable and adequately explained the patient condition, examination results and the treatment process. The physician allowed the patient to ask many questions, enough to clarify everything and paid enough consideration to the patient concerns in deciding on a medical procedure.

Tangibles - The waiting areas for doctors and medication were pleasant. It was easy to use amenities (e.g., public telephone, cafeteria, etc.) and to find care facilities (e.g., lab, doctor's office, etc.). The hospital seemed to be equipped with latest equipment.

Dufrene (2000) evaluated patient satisfaction of medical centers in the south region of the United States and found that the five dimensions of patients' perceptions of care concerned nursing care, doctor care, discharge, billing and food/cleanliness.

In the USA, the discussion among Pharmaceutical Services Negotiating Committee (PSNC), NHS Confederation and Department of Health led to the modernization of the National Contractual Framework for Community Pharmacy. The detail indicated that "A good community pharmacy service is one where the patient comes first. Where medicines are available conveniently when patients want them. Where pharmacists make themselves available to respond to requests for advice and take the initiative in offering help where appropriate. Where patients can discuss personal matters in privacy if they wish, and with the absolute confidence that their pharmacist is equipped with up-to-date expertise and skills." According to these statements, the similar dimensions of SERVQUAL can be extracted.

However, many studies indicated that communication, explanation and doctor-patient interaction was one of the dimensions of the health care service (Qatari and Haran, 1999). For a health care service that is so salient and steeped in credence

properties, the importance of communication between health care service providers and receivers including an explanation of both verbal and written information should be emphasized. At a minimum, patients want to know about their health conditions, and treatment procedures. Failure to communicate with patients could lead them to a state of uncertainty and vulnerability.

Therefore, in this study, the “communication” dimension will be added together with the five dimensions of SERVQUAL to measure the community pharmacy service. The examples and explanation of how medical care customers judge the six dimensions of service quality are as follows:

Communication - Keeping customers informed with adequate and clear information. Avoiding using technical jargon and explaining customers in the language they can easily understand.

Reliability - Appointments are kept on schedule and diagnoses prove accurate.

Responsiveness – Accessibility, no waiting and a willingness to listen.

Assurance – Knowledge, skills, credentials and reputation.

Empathy – Acknowledgement of patient as a person, remembering previous problems, good listening skills and patience.

Tangibles - Waiting and examination rooms, the equipment and written materials provided.

Communication – Clear, adequate and easily understood information and avoiding using technical jargon.

Importance of Service Quality Dimensions

One of the most useful forms of analysis in marketing research is the importance/performance matrix (Zeithaml and Bitner, 1996). This chart combines information about customer perceptions and importance ratings. An example is shown in Figure 2.1. Dimension importance is represented on the vertical axis from high (top) to low (bottom). Performance is shown on the horizontal axis from low (left) to high (right). There are many variations of these matrices: Some companies define the horizontal axis as the gap between expectations and perceptions, or as performance relative to competition. The upper quadrant on the left of the chart indicates the area of highest leverage for service quality improvements – where importance is high and performance is low. In this quadrant are the dimensions that most need to be improved. In the adjacent upper quadrant are dimensions to be maintained, ones that a company performs well and that are very important to customers. The lower two quadrants contain attributes that are less important, some of which are performed well and others poorly. Neither of these quadrants merit as much attention in terms of service improvements as the upper quadrants because customers are not as concerned about the dimensions that are plotted in them as they are the dimensions in the upper quadrants.

Attribute Importance

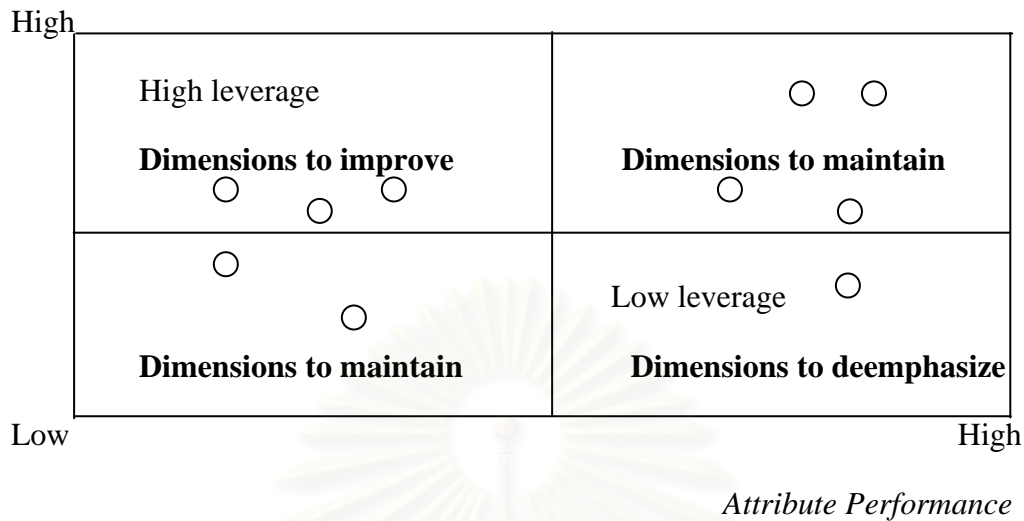


Figure 2.1: Importance/Performance Matrix (Zeithaml and Bitner, 1996)

SERVQUAL

The Birth of SERVQUAL (1983-1985)

In 1985, A. Parasuraman, Leonard Berry, and Valarie Zeithaml jointly published “A conceptual model of service quality and its implications for future research” which appeared in the fall issue of *Journal of Marketing*. Three years later, in the *Journal of Retailing*, they published their approach for defining and measuring service quality, SERVQUAL. Their foundation of the measurement rested on the authors’ suggestion that service quality should be represented as the difference, or “gap” between service expectations and actual service performance (Gap 5; Customer Gap).

Parasuraman et al. identified five service quality gaps (Zeithaml and Bitner, 1996; Lovelock, 2001). The gaps can be seen as the differences between:

Gap 1: Consumer expectations and management perceptions of consumer expectations.

Gap 2: Management perceptions of consumer expectations and service quality specifications.

Gap 3: Service quality specifications and the service actually delivered.

Gap 4: Service delivery and what is communicate about the service to consumers.

Gap 5: Consumer expectations and perceptions.

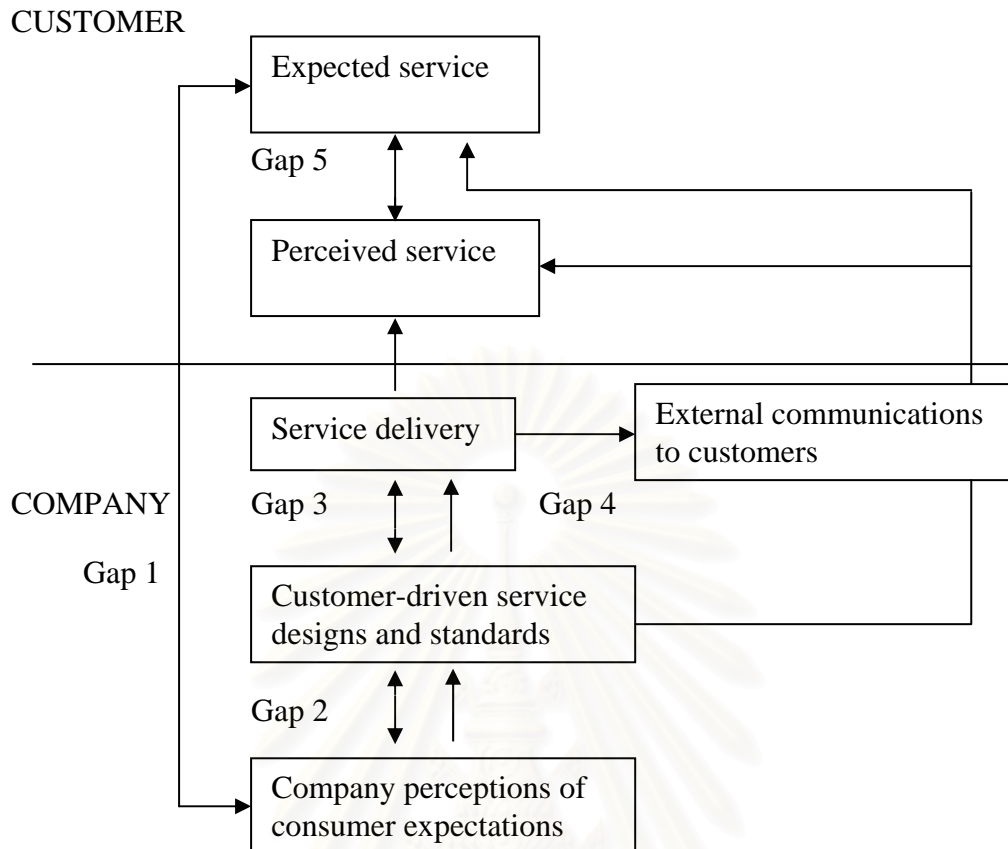


Figure 2.2: Gaps Model of Service Quality (Lovelock, 2001)

SERVQUAL Instrumentation (1985-1988)

Of particular interest to Parasuraman et al. was Gap 5 – the expected service/perceived service gap. The article in the *Journal of Retailing* (1988) produced the famous equation, $Q = P - E$, and operationalized it empirically. The GAP paradigm implied that service quality was deemed sufficient when consumer perceptions of service performance were equal to or greater than the expected level of service. One key to maximizing quality was to maximize the difference between perceived performance (P) and customer expectations (E).

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The Extended Gaps Model (1988-1990)

Parasuraman et al. offered an extended model of service quality. They identified a variety of factors, internal to an organization, that affected the level of service quality delivered to the customer.

Provider Gap 1 (Gap 1):

This is the difference between customer expectations of service and company understanding of those expectations. The key factors leading to Provider Gap 1 are as follows:

- Inadequate marketing research orientation resulting from insufficient and inadequate use of marketing research, research not focused on service quality.
- Lack of upward communication as a result of lack of interaction between management and customers, insufficient communication between contact employees and managers and too many layers between contact personnel and top management.
- Insufficient relationship focus caused by focusing on transactions rather than relationships, focusing on new customers rather than relationship customers and lack of market segmentation.
- Inadequate service recovery.

Provider Gap 2 (Gap 2):

This is the difference between management perceptions of consumer expectations and service quality specifications. The key factors leading to Provider Gap 2 are as follows:

- Poor service design because of unsystematic new service development process, vague, undefined service designs and failure to connect service design to service positioning.
- Absence of customer-defined standards, absence of process management to focus on customer requirements and absence of formal process for setting service quality goals.
- Inappropriate physical evidence and servicescape.

Provider Gap 3 (Gap 3):

This is the difference between service quality specifications and the service actually delivered. The key factors leading to Provider Gap 3 are as follows:

- Deficiencies in human resource policies because of ineffective recruitment, role ambiguity and role conflict, poor employee-

technology job fit, inappropriate evaluation and compensation systems and lack of empowerment, perceived control, and teamwork.

- Failure to match supply and demand, failure to smooth peaks and valleys of demand, inappropriate customer mix and over-reliance on price to smooth demand.
- Customers not fulfilling roles because of customer ignorance of roles and responsibilities and customers negatively affecting each other.
- Problems with service intermediaries caused by channel conflict over objectives and performance and over costs and rewards, difficulty controlling quality and consistency and tension between empowerment and control

Provider Gap 4 (Gap 4):

This is the difference between service delivery and what is communicated about the service to consumers. The key factors leading to Provider Gap 4 are as follows:

- Lack of integrated services marketing communications because of a tendency to view each external communication as independent, not including interactive marketing in communications plan and an absence of strong internal marketing program.
- Ineffective management of customer expectations by not managing customer expectations through all forms of communication and not educating customers adequately.
- Overpromising on advertising, personal selling and through physical evidence cues.
- Inadequate horizontal communications as a result of insufficient communication between sales and operations, insufficient communication between advertising and operations and differences in policies and procedures across branches or units.

Customer Gap (Gap 5):

Customer gap is the difference between consumer expectations and perceptions. The key factors leading to Customer Gap are as follows:

Provider gap 1: Not knowing what customers expect

Provider gap 2: Not selecting the right service designs and standards

Provider gap 3: Not delivering to service standards

Provider gap 4: Not matching performance to promises

The causes and strategies for each of the Provider Gaps (Zeithaml, Berry, and Parasuraman, 1988) are as follows:

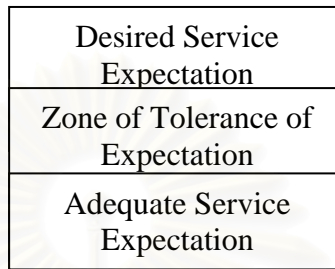
	Causes	Strategies
Provider gap 1	Failure of management to identify consumer expectations.	Communicate with customers Conduct market research Encourage upward communication Decrease layers of management
Provider gap 2	Resource constraints Market conditions Management indifference	Top management commitment Service quality goals Standardization of tasks
Provider gap 3	Employees unaware of specifications Employees do not have skills Employees unwilling to perform work	Enhance teamwork Ensure employee-job fit Ensure technology-job fit Employee control and a supervisory system Reduce role conflict and role ambiguity
Provider gap 4	Poor or lack of communication Over-promising	Increase horizontal communications Avoid propensity to overpromise

Nature and Determinants of Service Expectations (1990-1993)

In 1993, Parasuraman et al. developed the “Zone of Tolerance” concept. The zone of tolerance is an area between a customer’s adequate service level and the desired service level (Lovelock, 2001). This new model was based upon the following two propositions:

1. Customers assess service performance based on two standards: what they desire and what they deem acceptable.
2. A zone of tolerance separates desired service from adequate service.

The model shows how expectations for desired service and adequate service were formed (Lovell, 2001).



The Refined SERVQUAL Instrument (1993-1994)

In 1994, Parasuraman et al. tested alternative operational definitions of the zone of tolerance concept. The article published in the Journal of Retailing showed the usefulness of the zone of tolerance to the suboptimal allocation of service-improvement resources.

SERVQUAL Dimensions

SERVQUAL was originally composed of ten dimensions, including reliability, responsiveness, assurance, competence, access, courtesy, communication, credibility, security, understanding/knowing the customers, and tangible.

Through continuous revisions in 1988, and 1991, it has become five dimensions with 22 items (Parasuraman, Zeithamal, and Berry 1988, 1991). The five dimensions were identified through empirical research on five industries that were composed of retail bank, a long distance telephone company, a security broker, an appliance repair and maintenance firm, and credit card companies. SERVQUAL model is industry specific and can be applied to different industry through revision according to the uniqueness of each industry.

The scale is a composite of five dimensions. The first dimension is the tangibles dimension. It contains statements on equipment, communications materials, neatness of employees and physical facilities. Reliability is the second dimension and deals with promises, error-free records and sincerity in solving problems. The third dimension, responsiveness, is about the willingness to be prompt and helpful in service delivery. The assurance dimension deals with safety, trust, confidence and courtesy. The final dimension, empathy, contains statements on attention, opening hours and needs.

However, the number of dimensions and stability of items across different industries has been questioned by a number of authors (Caruana, Ewing, and

Ramaseshan, 2000). Carman (1990) found nine factors in hospital services and also provided evidence of items not loading on factors as expected; Gagliano and Hathcote (1994) found four factors in the retail clothing sector; Bouman and Van Der Wiele (1992) found three in car servicing. Cronin and Taylor (1992) who examined four types of firms, namely, banks, pest control, dry cleaning, and fast food, make use of confirmatory factor analysis in LISREL to compare the SERVQUAL five factor intercorrelated model with a single factor structure. They conclude that the five component factor structure “is not confirmed in any of the research samples” and that a unidimensional structure fits the data better. In reviewing the literature on SERVQUAL replication studies, Dabholkar, Thorpe, and Rentz (1996) concluded that “in general these studies do not support the factor structure posited.” Babakus and Boller (1992) have suggested that the number of service quality dimensions is dependent on the service being offered. Using the revised SERVQUAL scale, Parasuraman, Zeithaml, and Berry (1994b) moved away from their original five dimensions to three: reliability, tangibles, while “responsiveness, assurance and empathy meld into a single factor.”

In conclusion, these dimensions will differ in salience as between different industries. In addition, consumers may place a higher value on some of these dimensions rather than others – for example, empathy might be more important in a hospital clinic but reliability in a bank.

Critiques on SERVQUAL

Cronin and Taylor (1992) criticized that conceptualization and operationalization of perceived service quality as a difference or gap score were not appropriate. They raised the questions about the true factor structure of the service quality construct. They argued that SERVQUAL confounds satisfaction and attitude. They stated that service quality can be conceptualized as “similar to an attitude,” and can be operationalized by the “adequacy-importance” model. In particular, they maintained that “performance” instead of “performance-expectation” determines service quality. They were the first to offer a theoretical justification for discarding the expectations portion of SERVQUAL in favor of just the performance measures included in the scale (i.e., what they termed SERVPERF). The term “performance-only measures” has thus come to refer to service quality measures that are based only on consumers’ perceptions of the performance of a service provider, as opposed to the difference (or gap) between the consumers’ performance perceptions and their performance expectations. Subsequent to the publication of Cronin and Taylor’s (1992) findings, a number of scholars have arrived at similar conclusions with respect to the superiority of performance measures.

Peter, Churchill, and Brown, 1993; Brown, Churchill, and Peter, 1993 recognizing the widespread use of the scale as well as the criticisms of its methodology, proposed that a major problem with the SERVQUAL gap model stemmed from the use of difference scores. They cited several studies which reported that difference scores caused reliability, discriminant validity, and variance restriction problems, and contended that SERVQUAL appeared to suffer from one or more of these deficiencies.

Peter et al. (1993) showed the problem of spurious correlations by indicating that correlations between gap scores and other variables were artifacts of correlations with the components.

Peter et al. (1993); Brown et al. (1993) showed the problem of variance restrictions by indicating that “E” scores were consistently higher than “P” scores. This led to a systematic variance restriction which was problematic for many types of statistical analyses.

Teas (1993) pointed out that the SERVQUAL expectations measure normative expectations and were similar to the ideal standard in the CS/D literature. He argued that “the ideal standard can be interpreted in two views; the ideal point specified in classic ideal point models and a feasible ideal point.” However, he argued that the SERVQUAL P-E measurement specification was not compatible with either classic ideal point or a feasible ideal point. He criticized the conceptual foundation of the scale citing the theoretical impossibility that performance levels that exceeded a consumers’ ideal standard should be evaluated higher than those that were “ideal.” He referred to this inconsistency, in addition to the well-documented criticisms of the gap model, as a clear indication that an alternative to the SERVQUAL scale should be a distinct priority.

In addition, he identified problems concerning the operationalization of the service expectation concept. Teas (1993, 1994) indicated the serious measurement validity problems because of the multiple definitions of “expectations.” Different interpretations of “expectations” include a forecast or prediction, a measure of attribute importance, classic ideal point, and vector attribute. The subjects are not able to differentiate among different types of expectation when they provide evaluations.

Carman (1990) argued that SERVQUAL could not be a generic measure that could be applied to any service. They indicated that the wording and subject of some individual items needed to be customized to each service setting.

Babakus and Boller, 1992; Carman, 1990; Cronin and Taylor, 1992; Parasuraman et al., 1991 raised the questions about the true factor structure of the service quality construct. Cronin and Taylor, 1992 stated that scale items defining service quality could be different according to service industry type. Furthermore, they did not agree with five dimensions of SERVQUAL model and insisted that 22 items are single dimension.

Moreover, several studies have failed to detect the same dimensions as Parasuraman et al. when applying the SERVQUAL scale in different service industries. Researchers have found varying numbers of dimensions with SERVQUAL, ranging from a low of one dimension to as many as nine (Carman, 1990; Cronin and Taylor, 1992). Few studies have found support for the original five dimensions proposed by Parasuraman, Zeithaml, and Berry (1988). Several studies cited by Landrum and Prybutok (2003) have found that the responsiveness, assurance, and empathy dimensions tend to collapse into a single dimension, leaving SERVQUAL with a 3-dimensional structure. Parasuraman, Zeithaml, and Berry (1994) also found evidence for both a 3-dimensional and 5-dimensional structure.

Based on these findings, there appears to be more support for a 3-dimensional structure and performance scores are used to calculate service quality.

From literature review, the main problem categories of the SERVQUAL approach are identified as the use of difference scores, unstable dimensionality, varying interpretations of expectations and poor predictive and convergent validity.

Response to Critiques on SERVQUAL (Lee, Lee, and Yoo, 2000)

Parasuraman et al. (1994) defended their position by insisting that past research provided strong support conceptually and empirically for service quality as the discrepancy between expectations and perceptions. Especially, it was pointed out that Cronin and Taylor (1992) did not allow for possible intercorrelations among the five latent constructs. They argued, therefore, that it might have been a possible reason for the low fit of Cronin and Taylor's SERVQUAL data.

In response to Teas (1993) argument regarding the P-E specification in the SERVQUAL framework, Parasuraman et al. (1994) defended their position by insisting that the P-E specification was meaningful if the service feature was a vector attribute – that is, one on which a customer's ideal point was at an infinite level, and could be problematic only when a customer's ideal point was at a finite level.

They argued that since customers were likely to consider the items in SERVQUAL to be vector attributes, the severity of the problems suggested by Teas (1993) may not be that large.

Parasuraman et al. (1993) responded to Brown et al. (1993) critiques of SERVQUAL's difference score conceptualization. They argued that the superiority of the non-difference score conceptualization were debatable. Their arguments can be summarized as follows:

Regarding reliability, their own findings from multiple studies demonstrated high reliabilities for their SERVQUAL measures.

Regarding discriminant validity, they argued that Brown et al. discussions were not correct. Additionally, the difference score formulation displayed somewhat stronger discriminant validity than did the non-difference score formulation.

Variance restriction problem may arise when difference scores are used in multivariate analysis. However, it is not relevant when difference scores are used for diagnosis purposes, and the diagnostic application of primary advantages. Finally, they demonstrated a stronger convergent validity of the SERVQUAL measure using the results of Brown et al. (1993) data analysis. In addition, they argued that the SERVQUAL measure has more diagnostics, therefore, more practical implications than has the perceptions only measure.

Parasuraman, Zeithaml, and Berry (1994b) have continued to argue about the importance of measuring expectations, suggesting that a high score on the performance items may not be high enough and could "lead to inaccurate assessment

of perceived service quality.” However, it is quite possible that in many cases customers do not have any real specific expectations about a service and making use of the expectation batteries of questions results in specific expectation scores for the various items that might not in fact exist. Respondents can have only a general overall expectation that in turn results in a halo effect on the more specific expectations. It also has been demonstrated that the perception scores on their own “explain more of the variation in service quality” than gap measures (Babakus and Boller, 1992; Cronin and Taylor, 1994; Parasuraman, Zeithaml, and Berry, 1994b). The wisdom of factor analyzing gap scores has been questioned (Brown, Churchill, and Peter, 1993). However, Parasuraman, Zeithaml, and Berry (1994a) argued that the disconfirmation model of service quality provides managers with a more practical diagnosis of the service quality problems.

Modification of SERVQUAL

A major refinement of SERVQUAL was the shift in emphasis from items which were described as “should” to a rewording of items as “would,” as it was found that “should” generated unrealistic expectations in participants; with a rewording and substitution of some original items. The negatively worded items in the original version were substituted for two original items to more fully capture the dimensions and to incorporate suggestions from managers (Parasuraman, Zeithaml, and Berry, 1991).

Previous studies showed that respondents tended to give high expectation scores that often resulted in a variance restriction problem (Parasuraman, Zeithaml, and Berry, 1994b; Babakus and Boller, 1992; Brown, Churchill, and Peter, 1993). To overcome this, Parasurama, Zeithaml, and Berry (1994b) moved to a nine-point rather than a seven-point scales in their three-column format SERVQUAL. It is possible that decreasing P-E (gap) scores do not necessarily reflect continuously increasing levels of perceived service quality; and given a seven-point scale, there are six ways in which the same difference score can be obtained (Teas, 1993).

In response to the criticisms, Parasuraman et al. (1994) developed and investigated three alternative SERVQUAL formats. From their empirical research, the authors concluded that “the three-column format questionnaire seems most useful” as it could be used for diagnostic purposes and offered the possibility of using the perception items separately for those interested in maximizing predictive power. Among other improvements, the three-column format incorporated the recent reconceptualization of the expectations side of the GAPS model into desired and minimum expectations and the use of nine-point scales. Adjustments to the instrument also had been made to accommodate the elimination of one of the original items thereby reducing the number of items to 21 and a reordering of the sequence of some of the items.

In an attempt to resolve some of the confusion surrounding expectations, Parasuraman et al. identified expectations into desired service expectation and adequate service expectation (Zeithaml and Bitner, 1996).

As a result of suggestions to add measures of importance to SERVQUAL, Parasuraman et al. (1994) added a section to SERVQUAL for measuring the

importance of the underlying dimensions, but this posed two problems. First, this approach assumed that the items match the underlying dimensions of SERVQUAL as proposed by Parasuraman et al. and several studies found differences. Second, measuring only the importance of the dimensions may mislead managers into emphasizing some items rated low in importance that belonged to a highly rated dimension, and failing to emphasize some items rated high in importance that belonged to a lower rated dimension.

Implication of SERVQUAL

While the instrument continues to be critiqued and improved, it remains the pre-eminent instrument within marketing practice and research for assessing service quality (Kettinger and Lee, 1994). Fisk, Brown, and Bitner (1993) examined seven studies in the marketing literature that debated the usefulness of SERVQUAL and concluded that the instrument was a good predictor of overall service quality.

Brady, Cronin Jr., and Brand (2002) cited many studies and found that however, in spite of the evidence presented in Cronin and Taylor (1992) and similar studies, that it was still common to see the SERVQUAL scale used by service organizations and identified as the appropriate service quality measurement tool in marketing textbooks and journal articles.

This use of the SERVQUAL scale in the literature suggested that a consensus had not been reached relative to the superiority of performance-only measures of service quality (Brady, Cronin Jr., and Brand, 2002).

Implication of SERVQUAL in Health Care Service

The SERVQUAL instrument has served as the basis for measurement approaches for service quality. Many researchers tested this instrument in health care settings, with mixed findings. Babakus and Mangold (1992) determined that SERVQUAL is reliable and valid in the hospital environment, but also raised questions about the need to measure expectations. Bowers, Swan, and Koehler (1994) reported difficulties in translating SERVQUAL dimensions into health care, because the provider-consumer interaction is more intense, and can at times have life and death consequences.

From literature reviews, many studies used SERVQUAL to measure the quality of health care service. Some studies used only the five dimensions of SERVQUAL whilst some added more dimensions. Some studies used the SERVQUAL instrument with other dimensions. However, most of these researchers were satisfied with the validity and reliability of the SERVQUAL instrument.

Wanpen Kaewpan and Surepan Vorapongsathorn (2002) examined construct validity of client's perception on service quality questionnaire at out-patient departments in regional and general hospital questionnaire in central region in Thailand. They developed questionnaire from 5 components of SERVQUAL instrument. The reliability of the questionnaire tested by Cronbach Coefficient was .94. However, they recommended that some questions needed to be improved for

Thai population, and the questionnaire needed to be clarified so that it could be used in the region of the country.

Some studies in Thailand used SERVQUAL to measure the quality of health care and nursing service. Padcharee Tongpae (1997) studied nursing service quality as perceived by inpatients on tangibles, reliability, responsiveness, assurance and empathy, and compared nursing service quality concerning five dimensions as perceived by inpatients of excellent award community hospitals and general community hospitals. The reliability of the questionnaire tested by Cronbach Coefficient was .95. They found that the nursing service quality as perceived by inpatients of excellent award community hospitals and general community hospitals were dissatisfaction, and there was statistically significant difference at the level of 0.05 between nursing quality perceptions of both groups of community hospital inpatients. For comparison, the nursing service quality scores as perceived by inpatients of general community hospitals was higher than that of inpatients of excellent award community hospitals.

Skawvadee Doungden (1996) studied, compared and ranked patients' expectation and head nurses' perception of patients' expectation on nursing service quality, government hospitals, Bangkok Metropolis. They used adapted SERVQUAL instrument, and found that patients' expectation and head nurses' perception of patients' expectation on nursing service quality are statistically significant difference at the level of 0.05. Head nurses perceived patients' expectation more than that of patients on access, communication, courtesy, credibility, security and understanding/knowing customer, while patients perceived more than that of head nurses' perception on tangibles.

Panida Khamyu (1995) used derived SERVQUAL to study service quality provided by nurses as expected by patients and head nurses' perception of patients' expectation toward service quality by nurses, and compare service quality provided by nurses as expected by patients and head nurses' perception of patients' expectation toward service quality provided by nurses, private hospitals, Bangkok Metropolis. The two sets of questionnaires for patients and head nurses were validated and tested the reliability by Cronbach coefficient were .95 and .94, respectively. She found that there was statistically significant difference at the 0.05 between service quality provided by nurses as expected by patients and head nurses' perception of patients' expectation toward service quality provided by nurses. She revealed that head nurses' perception of patients' expectation was higher than patients' expectation toward service quality provided by nurses.

Customer Expectations of Services

Customers' expectations about what constituted good service varied from one business to another. Expectations were also likely to vary in relation to differently positioned service providers in the same industry. Consequently, it was very important for marketers to understand customer expectations of their own firm's service offerings.

When individual customers or corporate purchasing departments evaluated the quality of a service, they might have been judging it against some internal standard

that existed prior to the service experience (Schneider and Bowen, 1995). Perceived service quality resulted from customers comparing the service they perceived they had received against what they expected to receive. Specifically, individuals holding different expectations could have experienced an identical services encounter but have different perceptions of the service (Schommer, 2000).

People's expectations about services tended to be strongly influenced by their own prior experience as customers-with a particular service provider, with competing services in the same industry, or with related services in different industries. If they had no relevant prior experience, customers might have based their pre-purchase expectations on factors such as word-of-mouth comments, news stories, or the firm's marketing efforts.

Overtime, certain norms develop for what to expect from service providers within a given industry. These norms are reinforced by both customer experience and supplier-controlled factors such as advertising, pricing, and the physical appearance of the service facility and its employees.

Clow, Kurtz, and Ozment (1998) cited many satisfaction /dissatisfaction literature, and found various approaches for conceptualizing consumer expectations have been proposed, each based on a different theoretical foundation. The most prominent conceptual definition utilizing expectancy theory was that consumer expectations were predictions (i.e., probabilities) made by the consumer concerning the outcome of a service transaction or exchange. Other researchers using the equity theory and the ideal point models of consumer preference and choice proposed the normative concept of ideal expectations defined as the wished-for level of performance or the desired level of performance. This ideal expectations concept appeared to be the most prevalent shade of meaning elaborated in the service quality literature and was used in the construction of SERVQUAL (Parasuraman, Zeithaml, and Berry, 1988).

A theoretical model delineating the nature and determinants of customer expectations of services was developed by Zeithaml, Berry, and Parasuraman (1993). This model consisted of four main sections: the expected service component, the antecedents of desired service, the antecedents of adequate service, and the antecedents of both predicted and desired service. The expected service component was hypothesized to be composed of the desired service, a zone of tolerance, and adequate service. Based on the results of focus groups, Zeithaml, Berry, and Parasuraman (1993) indicated that consumers had a desired level of service that was defined as the level of service customers hoped to receive. This was a blend of what consumers believed could be performed and what should be performed. Recognizing the desired level of service was not always possible, consumers had a minimum level of service that they would tolerate. This was called their adequate service level. Between these two expectation levels was a zone of tolerance that consumers were willing to accept and the predicted level of service consumers expected to receive (Zeithaml, Berry, and Parasuraman, 1993).

Desired and Adequate Service Levels

Desired service is the type of service customers hope to receive. It is a wished-for level of service, a combination of what customers believe can be and should be delivered in the context of their personal needs. However, most customers are realistic and understand that companies can not always deliver the level of service they would prefer; hence, they also have a threshold level of service customers will accept without being dissatisfied. Among the factors that set this expectation are situational factors affecting service performance and the level of service that might be anticipated from alternative suppliers. The levels of both desired and adequate service expectations may reflect explicit and implicit promises by the provider, word-of-mouth comments, and the consumer's past experience (if any) with this organization (Johnson and Mathews, 1997).

Predicted Service

The level of service customers actually anticipate receiving is known as predicted service and directly affects how they define adequate service on any given occasion. If good service is predicted, the adequate level will be higher than if poorer service is predicted. Customer predictions of service may be situation specific. For example, from past experience, customer visiting a museum on a summer day may expect to see larger crowds if the weather is poor than if the sun is shining. So a 10-minute wait to buy tickets on a cool, rainy day in summer might not fall below their adequate service level (Lovelock, 2001).

Zone of Tolerance

The inherent nature of services makes consistent service delivery difficult across employees in the same company and even by the same service employee from one day to another. The extent to which customers are willing to accept this variation is called the zone of tolerance. A performance that falls below the adequate service level will cause frustration and dissatisfaction, whereas one that exceeds the desired service level will both please and surprise customers, creating what is sometimes referred to as customer delight. Another way of looking at the zone of tolerance is to think of it as the range of service within which customers do not pay explicit attention to service performance (Johnston, 1995). By contrast, when service falls outside the range, customers will react either positively or negatively.

The zone of tolerance can increase or decrease for individual customers depending on factors such as competition, price, or importance of specific service attributes. These factors most often affect adequate service levels (which may move up or down in response to situational factors), whereas desired service levels tend to move up very slowly in response to accumulated customer experiences. Consider a small-business owner who needs some advice from her accountant. Her ideal level of professional service may be a thoughtful response by the next business day. But if she makes the request at the time of year when all accountants are busy preparing corporate and individual tax returns, she will probably know from experience not to expect a fast response. Although her ideal service level probably will not change, her

zone of tolerance for response time may be much broader because she has a lower adequate service threshold (Lovelock, 2001).

Different Customers Possess Different Zones of Tolerance

Another aspect of variability in the range of reasonable services is that different customers possess different tolerance zones (Zeithaml and Bitner, 1996). Some customers have narrow zones of tolerance, requiring a tighter range of service from providers, whereas other customers allow a greater range of service. An individual customer's zone of tolerance increases or decreases depending on a number of factors, including company-controlled factors such as price. When prices increase, customers tend to be less tolerant of poor service. In this case, the zone of tolerance decreases because the adequate service level shifts upward.

Zones of Tolerance Vary for Service Dimensions

Customers' tolerance zones also vary for different service dimensions (Zeithaml and Bitner, 1996). The more important the factor, the narrower the zone of tolerance is likely to be. In general, customers are likely to be less tolerant about unreliable service than other service deficiencies, which means that they have higher expectations for this factor. In addition to higher expectations for the most important service dimensions and attributes, customers are likely to be less willing to relax these expectations than those for less important factors, making the zone of tolerance for the most important service dimension smaller and the desired and adequate service levels higher.

The fluctuation in the individual customer's zone of tolerance is more a function of changes in the adequate service level, which moves readily up and down due to situational circumstances, than in the desired service level, which tends to move upward incrementally due to accumulated experiences. Desired service is relatively idiosyncratic and stable compared with adequate service, which moves up and down and in response to competition and other factors. Fluctuation in the zone of tolerance can be linked to an accordion's movement, but with most of the gyration coming from one side (the adequate service level) rather than the other (the desired service level).

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Level of Expectation

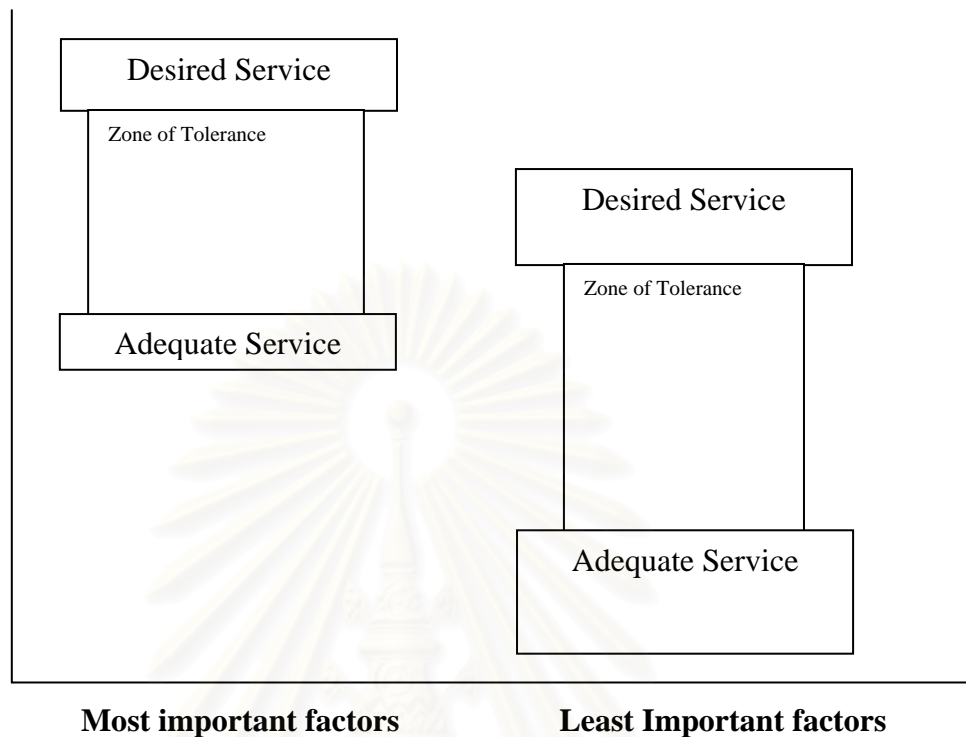


Figure 2.3: Zones of Tolerance for Different Service Dimensions (Berry, Parasuraman, and Zeithaml, 1993)

Zones of Tolerance Charts

The data on the dual expectation levels; desired service and adequate service, along with performance data can be conveyed concisely on zone of tolerance charts. Figure 2.4 plots customer service quality perceptions relative to customers' zones of tolerance. Perceptions of company performance are indicated by the circles, and the zones of tolerance boxes are bounded on the top by the desired service score and on the bottom by the adequate service score. When the perception scores are within the boxes, as in Figure 2.4, the company is delivering service that is above customers' minimum level of expectations. When the perception scores are below the boxes, the company's service performance is lower than the minimum level, and customers are dissatisfied with the company's service.

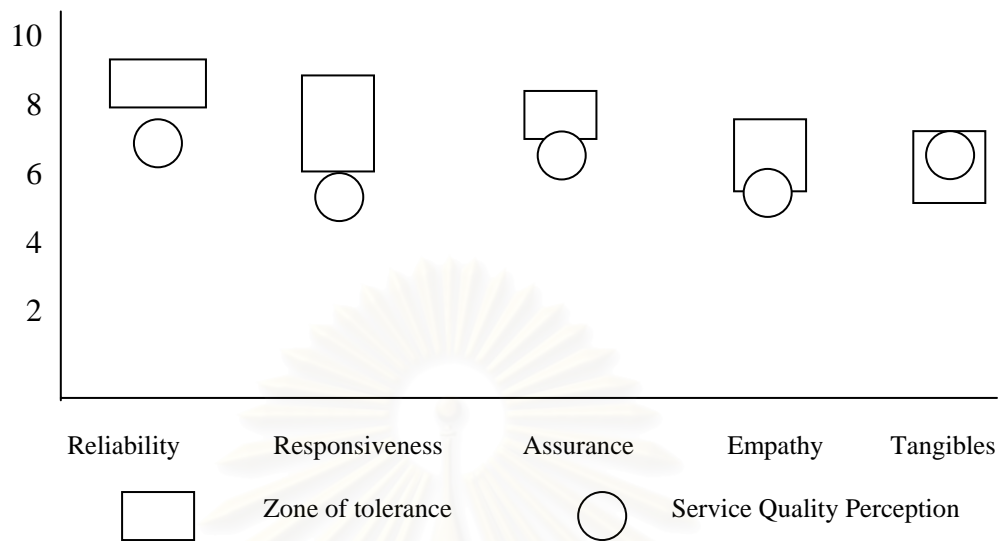


Figure 2.4: Service Quality Perceptions Relative to Zones of Tolerance by dimensions (Zeithaml and Bitner, 1996)

Factors Influence Customer Desired Service Expectation

The two largest influences on desired service level are personal needs and philosophies about service. Personal needs, those states or conditions essential to the physical or psychological well-being of the customer, are pivotal factors that shape the desired service level. Personal needs can fall into many categories, including physical, social, psychological, and functional.

Some customers are more demanding than others, having greater sensitivity to, and higher expectations of service. Enduring service intensifiers are individual, stable factors that lead the customer to a heightened sensitivity to service. One of the most important of these factors can be called derived service expectations, which occurs when customer expectations are driven by another person or group of people.

Another enduring service intensifier is personal service philosophy – the customer's underlying generic attitude about the meaning of service and the proper conduct of service providers.

To the extent that customers have personal philosophies about service provision, their expectations of service providers will be intensified. Personal service philosophies and derived service expectations elevate the level of desired service (Lovelock, 2001).

Factors Influence Customer Adequate Service Expectation

A different set of determinants affects adequate service level (Lovelock, 2001). In general, these influences are short-term and tend to fluctuate more than factors that influence desired service.

Transitory service intensifiers are temporary, usually short-term, individual factors that make a customer more aware of the need for service. In the situations where transitory service intensifiers are present, the level of adequate service will increase and the zone of tolerance will narrow.

Perceived service alternatives occur if customers have multiple service providers to choose from, or if they can provide the service for themselves, their level of adequate service is higher than those of customers who believe it is not possible to get better service elsewhere.

Self-perceived service roles occur when customers are able to perceive the degree to which they are able to exert an influence on the level of service they receive, in other words, how well they believe they are performing their own roles in service delivery. Customers' zone of tolerance seems to expand when they sense they are not fulfilling their roles.

Situational factors come into force when service performance conditions that customers view as beyond the control of the service provider occur. Customers who recognize that situational factors are not the fault of the service company may accept lower levels of adequate service given the context. In general, situational factors temporarily lower the level of adequate service, widening the zone of tolerance.

Predicted service is the level of service customers believe they are likely to get. If customers predict good service, their levels of adequate service are likely to be higher than if they predict poor service.

Differential Roles of Expectation in Consumers' Evaluation of Quality

Many studies have focused on the role of expectations toward the evaluation of quality. Schommer (2000) indicated that Normative (should) and predictive (will) expectations play differential roles in consumers' evaluation of perception of quality. Also, a particular type of expectation seems to serve different roles depending on the level of service performance. Moreover, individuals holding different expectations could experience an identical services encounter but have different perceptions of the service (Schommer, 2000).

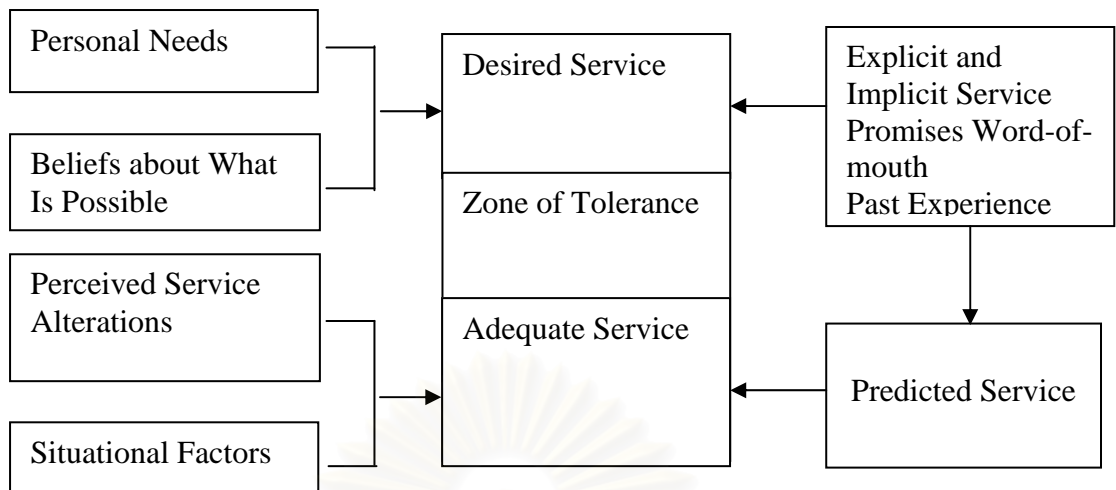


Figure 2.5: The model shows how expectations for desired service and adequate service are formed (Lovelock, 2001).

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CHAPTER III

METHODOLOGY

This chapter explained the study design, population and sample, data collection, study instrument development, and data analysis of this current study.

Study Design

A cross-sectional survey was used with a self-administered questionnaire. Since there were the problems of complexes of quality and expectation concepts, for instance, some client could not identify the desire expectation and minimum expectation level, to make sure that client could administer the questionnaire, the data collector had to explain these concept details, and asked for confirming that client clearly understood these concepts before let client responded the questionnaire. Moreover, there were some clients who could not self-administer questionnaire, and there were some community pharmacies that refused to join the project. Therefore, to gain the information as much as possible, a person-to-person interview method was used for some clients to gain the accurate information.

Population and Samples

The unit of analysis was client and pharmacist encounter. A purposive sample was utilized. The sampling frames were a name list of the membership of the Thai Community Pharmacy Association in Bangkok, Samuthprakan, Prathumthani, and Nonthaburi province, Thailand, and a name list of the drugstores in department stores and convenient stores in Bangkok, Thailand. The data was collected from every pharmacy with full time pharmacist(s) that accepted to join the project.

Actually, the study was planned to collect the data from every drugstore with full time pharmacist(s) that were the members of the Thai Community Pharmacy Association in Bangkok (225 drugstores), but only 70% (158 drugstores) of them accepted to be in the current project. Therefore, a name list of the membership of the Thai Community Pharmacy Association in Samuthprakan (13 drugstores), Prathumthani (15 drugstores), and Nonthaburi (25 drugstores) province, Thailand, and a name list of the drugstores in department stores and convenient stores in Bangkok (132 drugstores), Thailand were added to gain more data collection. The response rate was at about 60% (246 encounters from 410 drug stores).

Data Collection

The data had been collected from September 15, 2004 to January 15, 2005.

Questionnaire was distributed to client actively at the counter after target client encountering with pharmacist. One encounter was collected for each pharmacist.

Clients were asked to self-administer the survey questionnaire. The current study questionnaire was adapted from the three-column format SERVQUAL

instrument on an 11-point scale of 0 to 10 with 0 being the lowest and 10 the highest (Parasuraman, Zeithaml, and Berry, 1994b). The questionnaire consisted of three parts. The first part was to measure the evaluation of service performance, the adequate service level of expectation and the desired service level of expectation. The questionnaire included six dimensions which were tangibles, reliability, responsiveness, assurance, empathy, and communication. The second part was to measure the importance of each dimension by evaluating the service offered by the community pharmacist. Clients were asked to assign scores out of 100 points for six dimensions according to how important each dimension was to client. The more important a feature was to client, the more points he/she should allocate to it. The third part asked for general information and demographic characteristic of respondents.

Questionnaire was distributed to pharmacist actively at the counter after target client encountering with pharmacist. Pharmacists were asked to response the survey questionnaire; the revised format SERVQUAL instrument (Parasuraman, Zeithaml, and Berry, 1994b), on an 11-point scale of 0 to 10 with 0 being the lowest and 10 the highest. The questionnaire consisted of three parts. The first part, they were asked to fill in the form to measure their evaluation of their service performance. Stem of the questionnaire items were similar to the clients' questions which included the dimensions of tangibles, reliability, responsiveness, assurance, empathy, and communication. The second part was to measure the importance of each dimension by evaluating the service offered by themselves. They were asked to allocate a total of 100 points among the six dimensions according to how important each dimension was to a client. The more important a feature was to client, the more points he/she should allocate to it. The third part asked for general information and demographic characteristic of respondents.

Study Instruments

Questionnaire Design

In this study, the revised SERVQUAL instrument containing adequate expectations, desired expectations, and performance items were used to assess the perceived service quality of community pharmacy service, and clients was also asked to rate the importance of each dimension of pharmacy service.

The questionnaire used for this study had been developed mainly based on five dimensions of SERVQUAL model. One additional dimension was added to focus on the importance of information communicated between health care service provider and receiver. Therefore, in this survey, service quality was assessed in terms of 6 dimensions that were reliability, tangibles, assurance, empathy, responsiveness, and communication. This instrument consisted of 28 items. Each item was rated on an 11-point scale ranging from 0 to 10 with 0 being the lowest and 10 the highest. The "reliability" dimension was measured by 2 items. The "tangibles" dimension was measured by 5 items. The "assurance" was measured by 5 items. The "empathy" dimension was measured by 7 items. The "responsiveness" dimension was measured by 6 items. The "communication" dimension was measured by 3 items. The items representing the six dimensions of service quality were presented in Tables 3.1, 3.2, 3.3, 3.4, 3.5, and 3.6.

Table 3.1: Items for Measuring “Reliability”

1. Pharmacist provides service accurately.
2. Pharmacist checks type, number and expiry date of medicine before providing medication to client.

Table 3.2: Items for Measuring “Tangibles”

1. Pharmacist appears clean.
2. Pharmacist has the private zone for counseling when needed.
3. Pharmacist provides medical service cleanly.
4. Pharmacist provides service with complete information of medication names and indications.
5. Pharmacist records or can remember client past medication.

Table 3.3: Items for Measuring “Assurance”

1. Pharmacist has the knowledge to provide medicine, answer questions and give advices.
2. Pharmacist makes client feel safe to take medication.
3. Pharmacist does not disclose client health problem.
4. Pharmacist does not provide client unnecessary medicine.
5. Pharmacist provides service worth with client money.

Table 3.4: Items for Measuring “Empathy”

1. Pharmacist thoroughly asks client before providing client medicine.
2. Pharmacist provides service, health information and advice relevant to client need.
3. Pharmacist pays attention to solve client health problem.
4. Pharmacist pays attention to client gesture.
5. Pharmacist understands client health problem.
6. Pharmacist understands client need.
7. Pharmacist understands client feeling.

Table 3.5: Items for Measuring “Responsiveness”

1. Pharmacist is willing to service client.
2. Pharmacist provides service with sufficient time.
3. Pharmacist provides service with polite manner.
4. Pharmacist friendly provides service.
5. Pharmacist provides service with honest.
6. Pharmacist does not let client wait long for receiving service.

Table 3.6: Items for Measuring “Communication”

1. Pharmacist provides information with clear and understanding language.
2. Pharmacist answers client questions with sufficient details.
3. Pharmacist asks client back to see how well client understand the information.

Clients were also asked for information about gender, age, occupation, total income per month and level of education of respondents, and to indicate the number of times that they had visited community pharmacies.

Pharmacists were also asked for information about gender, age, level of education, experience as community pharmacists, work status and ownership status of respondents, and to indicate the type, number of clients per day, revenue per day, and status of “Accreditation Project” of community pharmacies of respondents.

Questionnaire Development

Study Instrument Modification

The revised SERVQUAL instrument of this study containing adequate expectations, desired expectations, and performance items was modified to reduce or eliminate problems reported with the SERVQUAL instrument.

Actually, the modified SERVQUAL instrument (Parasuraman, Zeithaml, and Berry, 1991) used a 7-point scale anchored at the ends of each statement by the labels “Strongly Disagree” (=1) and “Strongly Agree” (=7). Moreover, after the several refinement stages, SERVQUAL separated the expectation and perception into two sections of questionnaire. The expectation score was identified by asking client to imagine about the quality of service that he/she would receive from the excellent service provider. The perception score was identified by asking client to rate the quality of service that he/she actually received from the target service provider.

However, from literature review, the researcher decided to study the expectation in deep details by focusing on both desire service expectation level and adequate service expectation level. Therefore, the instrument of this current study was designed to have three sections of desire service expectation level, adequate service expectation level and performance perception. Moreover, to gain the sharp data of perception and expectation level, the researcher decided to use an 11-point scale of 0 to 10 with 0 being the lowest and 10 the highest as a scale in the current questionnaire. Client was asked to rate the score to represent his/her desire service expectation level, adequate service expectation level and pharmacist performance toward each item of community pharmacy service.

Dimensions and items development

From literature review, various dimensions and items were used for studying the quality of services, client satisfaction and expectation. After considering these gathered information, the researcher decided to focus on the five dimensions of SERVQUAL which were tangibles, assurance, reliability, responsiveness and empathy.

Questionnaires about five dimensions of SERVQUAL were distributed to many health service providers; doctors, nurses, pharmacists, and etc., and clients from many occupations; teachers, soldiers, policemen, state government officers, private employees, and etc. to recruit opinions about community pharmacy service. These people were asked about the properness of using the five dimensions of SERVQUAL to study community pharmacy service, and to identify the meaning of each dimension of community pharmacy service from their perspectives. The communication dimension was recommended to be the sixth dimension. The collected data were analyzed and items of each dimension were designed according to these meanings. Forty-eight items of community pharmacy were extracted.

The panel of experts; pharmacy faculty teachers from Chulalongkorn University, Silpakorn University, Prasarnmitr University, Kornkaen University, and Songkhanakarin University, Thai FDA officers, community pharmacy owners, community pharmacists, hospital pharmacists and etc. were asked about these six dimensions and forty-eight items. Only thirty-one items from six dimensions were approved to be used for community pharmacy service.

Wording was also well designed to make sure that client could understand the meaning of each item detail. Many clients and pharmacists were asked to clarify their understanding about wording and meaning of these thirty-one items of community pharmacy service. Finally, twenty-eight items from six dimensions of community pharmacy service were approved to be used for studying community pharmacy service.

Therefore, after many revision, details of each item of this current study were quite different from of SERVQUAL instrument. The details of each items of each dimension from SERVQUAL and current study were shown in Table 3.7, 3.8, 3.9, 3.10, 3.11 and 3.12.

Table 3.7: Item Comparison for Measuring “Reliability”

SERVQUAL	Current Study
1. do something by a certain time as promised	1. Pharmacist provides service accurately.
2. show a sincere interest in solving a problem	2. Pharmacist checks type, number and expiry date of medicine before providing medication to you.
3. perform the service right the first time	
4. provide service at the promised time	
5. insist on error-free records	

Table 3.8: Item Comparison for Measuring “Tangibles”

SERVQUAL	Current Study
1. has modern-looking equipment	1. Pharmacist appears clean.
2. physical facilities are visually appealing	2. Pharmacist has the private zone for counseling when needed.
3. appear neat	3. Pharmacist provides medical service cleanly.
4. materials associated with the service are visually	4. Pharmacist provides service with complete information of medication names and indications.
	5. Pharmacist records or can remember your past medication.

Table 3.9: Item Comparison for Measuring “Assurance”

SERVQUAL	Current Study
1. behavior of service provider instills confidence in customer	1. Pharmacist has the knowledge to provide medicine, answer questions and give advices.
2. make customer feel safe in transaction	2. Pharmacist makes you feel safe to take medication.
3. is consistently courteous with customer	3. Pharmacist does not disclose your health problem.
4. has the knowledge to answer customer questions	4. Pharmacist does not provide you unnecessary medicine.
	5. Pharmacist provides service worth with your money.

Table 3.10: Item Comparison for Measuring “Empathy”

SERVQUAL	Current Study
1. give customer individual attention	1. Pharmacist thoroughly asks you before providing you medicine.
2. has operating hours convenient to all customers	2. Pharmacist provides service, health information and advice relevant to your need.
3. has personnel who gives customer personal attention	3. Pharmacist pays attention to solve your health problem.
4. has the customer’s best interests at heart	4. Pharmacist pays attention to your gesture.
5. understand customer specific need	5. Pharmacist understands your health problem.
	6. Pharmacist understands your need.
	7. Pharmacist understands your feeling.

Table 3.11: Item Comparison for Measuring “Responsiveness”

SERVQUAL	Current Study
1. tell customer exactly when service will be performed	1. Pharmacist is willing to service you.
2. give prompt service	2. Pharmacist provides service with sufficient time.
3. is always willing to help customer	3. Pharmacist provides service with polite manner.
4. is never too busy to respond to customer request	4. Pharmacist friendly provides service.
	5. Pharmacist provides service with honest.
	6. Pharmacist does not let you wait long for receiving service.

Table 3.12: Item Comparison for Measuring “Communication”

SERVQUAL	Current Study
-	1. Pharmacist provides information with clear and understanding language.
	2. Pharmacist answers your questions with sufficient details.
	3. Pharmacist asks you back to see how well you understand the information.

Pilot Test

The pilot test was conducted at the community pharmacy of Chulalongkorn University and drug stores in Chachoengsao. Fifty pairs were asked to do self-administered questionnaires to gain information to improve the quality of the questionnaires. Since the concept of expectations; desire expectation and adequate expectation level, was quite complex, therefore, while conducting the pilot test, the researcher decided to let the data collector explain these concept details, and ask for confirming that client clearly understood these concepts before let client responded the questionnaire.

Cronbach’s alpha for each dimension of instrument

The high alpha values indicated good internal consistency among items within each dimension. The Cronbach’s alpha for each dimension of pharmacist evaluation, desired service expectation, adequate service expectation, and client evaluation were presented at Table 3.13. Acceptable indices were indicated, with alpha levels ranging from 0.5923 to 0.9744.

Table 3.13: Cronbach's alpha for each dimension of instrument

Dimension	Evaluation (Pharmacist)	Desire Service Expectation Level	Adequate Service Expectation Level	Evaluation (Client)
Tangibles	0.6566	0.5923	0.8886	0.7875
Assurance	0.7952	0.7739	0.9242	0.8946
Reliability	0.6697	0.8951	0.9395	0.9046
Responsiveness	0.8978	0.9281	0.9744	0.9696
Empathy	0.9262	0.8638	0.9729	0.9398
Communication	0.6121	0.8921	0.9402	0.9371

Data Analysis

Main purposes of the current study were to compare client and pharmacist perceptions about community pharmacy service quality, and to identify client perceived service quality of community pharmacy services by using GAP model as a theoretical framework.

Descriptive statistic was used to explain all study variables and demographic variables. Perceived Service Quality was evaluated by subtracting performance score with desire expectation score.

Perceived Service Quality of Client = Performance Score – Desire Expectation Score

Perception Discrepancy Analysis

To find out the perception discrepancy, comparing pharmacist service performance from client perspective and pharmacist perspective was statistically conducted by using Paired T-Test analysis because the present unit of analysis was client-pharmacist encounter.

Research Hypothesis:

Client perception of pharmacist service performance was at the same level as of pharmacist evaluation of his /her own service performance.

Statistical Hypothesis:

H₀: P_c = P_p

H₁: P_c ≠ P_p

Client perception about pharmacist performance: Pc

Pharmacist perception about pharmacist performance: Pp

Importance Discrepancy Analysis

To find out the importance discrepancy, comparing importance perception on community pharmacy service dimension from client perspective and pharmacist perspective was statistically conducted by using Paired T-Test analysis because the present unit of analysis was client-pharmacist encounter.

Research Hypothesis:

Importance perception on community pharmacy service dimension from client perspective was at the same level as from pharmacist perspective.

Statistical Hypothesis:

H₀: Ic = Ip

H₁: Ic ≠ Ip

Client perception about the importance of service dimensions: Ic

Pharmacist perception about the importance of service dimensions: Ip

Statistical Analysis:

Statistic Method:

Paired T-Test analysis:

- To compare pharmacist and client perceptions about pharmacist service performance of each item and dimension of pharmacy service.
- To compare pharmacist and client perceptions about the importance of service dimensions.

Significance Level:

A significance level was set at the .05 level.

CHAPTER IV

RESULTS

This study aimed to compare client and pharmacist perceptions about community pharmacy service quality, and to identify client perceived service quality of community pharmacy services by using GAP model as a theoretical framework. Client-pharmacist encounter at community pharmacies in Bangkok, Samuthprakan, Prathumthani, and Nonthaburi province, Thailand, was included as a unit of analysis. Both client and pharmacist were asked to do a self-administered questionnaire developed from SERVQUAL. The questionnaire included six dimensions of the community pharmacy service which were tangibles (5 items), assurance (5 items), reliability (2 items), responsiveness (6 items), empathy (7 items) and communication (3 items). It was used for client and pharmacist evaluation of quality services. Clients were asked to evaluate pharmacist service performance and identify the expectation level of community pharmacy service. Pharmacists were asked to self-evaluate their own service performance immediately at the counter after target client encountering. This chapter reported results of the current study which included demographic and general information of both client respondent and pharmacist respondent, client desire and adequate service expectation on community pharmacy service quality, and pharmacist performance from client and pharmacist perspectives.

Demographic information of clients

Clients were mostly female (67%) at the average of 38 years old; 34% and 25% out of them finished Bachelor's degree and high school, respectively. Thirty seven percent of clients were employees, and 19% of them were housewives. Forty four percent of clients had the salary between 6001 and 12000 Baht per month, and 31% of them had the salary less than 6000 Baht per month. Clients received the service from all drugstores about 3 times per month, and they received the service from the respondent drugstores about 3 times per month. The details of demographic information of clients were shown in Table 4.1 and Table 4.2.

Table 4.1: General information of client; age, frequencies of receiving service from drugstores

General information of client	Number	Min.	Max.	Mean
Age	246	15	76	38
Frequency of receiving service from the respondent drugstores and others	246	1	11	3
Frequency of receiving service from the respondent drugstores	246	1	11	3

Table 4.2: General information of client; gender, occupation, total income/month, highest education level, times per one month for receiving service from drugstores

General information of client	Number	Percentage
1. Gender		
male	81	33
female	165	67
2. Occupation		
unemployed	7	3
retired	7	3
student	19	8
housewife	48	19
business owner	23	9
governmental or state enterprise officer	29	12
employee	91	37
other	22	9
3. Total income/month		
< 6000 Baht	69	31
6001-12000 Baht	98	44
12001-18000 Baht	30	13
18001-24000 Baht	15	7
24001-30000 Baht	6	3
30001-42000 Baht	3	1
> 42000 Baht	3	1
4. Highest Education Level		
less than primary school	16	7
primary school	10	4
secondary school	27	11
high school	61	25
undergraduate	38	16
BS	82	34
MS, MBA	6	3
PhD	0	0
5. Times per 1 month for receiving service from all drugstores		
0	165	68
1	23	9
2	33	14
3	22	9
4	-	-
5	-	-
6	-	-
7	0	0

Table 4.2: General information of client; gender, occupation, total income/month, highest education level, times per one month for receiving service from drugstores (continued)

General information of client	Number	Percentage
6. Times per 1 month for receiving service from the respondent drugstores		
0	109	45
1	26	11
2	2	1
3	105	43
4	-	-
5	142	59
6	66	27
7	32	13

Demographic information of pharmacists and pharmacies

Fifty five percent of pharmacist respondents were male. The average age was 36 years old. Majority of them (86%) finished Bachelor Degree and 14% of them finished Master Degree. There were 68% of them who were registered as full time pharmacists. Forty five percent of the community pharmacists were owners and 43% of them were employees. They had the experience as community pharmacists about nine years, but only about eight years at the drug store respondents.

Most of the community pharmacies (59%) were independent drugstores outside department stores/offices and 27% of them were chain drug stores. Twenty nine percent of community pharmacies had the revenue between 1001-5000 Baht per day, 21 % had the revenue more than 20001 Baht per day, and 20 % had the revenue between 10001-15000 Baht per day. Forty six percent of community pharmacies had the number of clients per day between 50 and 100, and 38% had the number of clients per day between 1 and 50 clients. Nine percent of them did not apply for community pharmacy accreditation project by Thai Pharmacy Council, and 4% of them had already applied and gained the Accreditation. The details of demographic information of pharmacists and pharmacies were shown in Table 4.3 and Table 4.4.

Table 4.3: General information of pharmacist; age, year experiences as community pharmacist

General information of pharmacist	Number	Min.	Max.	Mean
Age	243	23	75	36
Year Experience as community pharmacist (included this drug store and others)	243	0.25	40	9
Year Experience at this drug store	243	0.25	40	8

Table 4.4: General information of pharmacist; gender, highest education level, work status, ownership and type of drugstore, number of client per day, revenue per day, Accreditation status

General information of pharmacist	Number	Percentage
1. Gender		
male	133	55
female	110	45
2. Highest Education Level		
BS	209	86
MS, MBA	34	14
PhD	0	0
3. Work Status		
registered, full time pharmacist	165	68
registered, part time pharmacist	23	9
unregistered, full time pharmacist	33	14
unregistered, part time pharmacist	22	9
other	0	0
4. Ownership of this drug store		
your own	109	45
your family	26	11
you are one of the partner	2	1
you are employee	105	43
5. Type of this drug store		
independent outside department store/office building	142	59
Chain drugstore	66	27
University drugstore	32	13
independent inside department store/office building	2	1
Franchise drugstore	0	0
Other	0	0
6. Number of clients/day		
1-50 clients	88	38
50-100 clients	108	46
101-150 clients	9	4
more than 150 clients	29	12
7. Revenue per day		
< 1000 Baht	3	1
1001-5000	65	29
5001-10000	31	14
10001-15000	45	20
15001-20000	32	15
>20001	46	21

Table 4.4: General information of pharmacist; gender, highest education level, work status, ownership and type of drugstore, number of client per day, revenue per day, Accreditation status (continued)

General information of pharmacist	Number	Percentage
8. Have this drugstore applied for community pharmacy accreditation project by Thai Pharmacy Council or not?		
applied, passed	10	4
applied, not passed	18	7
not applied	215	89

Client expectation on community pharmacy service quality

Desired level of expectation on community pharmacy service quality

Client desired expectation was defined as the level of service client wanted to receive from community pharmacy. The results showed that the range of client desired expectation on each dimension of community pharmacy service quality was from 8.46 to 9.39 at 11-point scale. The highest score was on reliability dimension, and the lowest score was on tangibles dimension. The desired expectation levels on tangibles, assurance, reliability, responsiveness, empathy, and communication dimensions were 8.46, 9.06, 9.39, 9.15, 8.76 and 8.98 at 11-point scale, respectively. When analyzing each item, the desired expectation levels of each item were ranged from 7.52 to 9.49 at 11-point scale. The highest score was on “Pharmacist provides service with honest” item, and the lowest score was on “Pharmacist has the private zone for counseling when needed” item. The mean scores of client desired expectation on each item of community pharmacy service quality were presented from the least desired level of expectation to the most desired level of expectation at Table 4.5.

Table 4.5: Mean score of client desire expectation level on each item of community pharmacy service quality

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean Score of Desire Expectation	Std.
Pharmacist has the private zone for counseling when needed.	246	0	10	7.52	2.083
Pharmacist records or can remember his/her client past medication.	246	0	10	7.75	2.215
Pharmacist pays attention to his/her client gesture.	246	4	10	8.2	1.421
Pharmacist understands his/her client feeling.	243	3	10	8.35	1.64

Table 4.5: Mean score of client desire expectation level on each item of community pharmacy service quality (continued)

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean Score of Desire Expectation	Std.
Pharmacist understands his/her client health problem.	246	0	10	8.62	1.702
Pharmacist does not disclose his/her client health problem.	246	0	10	8.63	1.704
Pharmacist does not let his/her client wait long for receiving service.	246	5	10	8.68	1.201
Pharmacist appears clean.	246	5	10	8.72	1.221
Pharmacist asks his/her client back to see how well his/her client understands the information.	246	2	10	8.79	1.380
Pharmacist provides service with sufficient time.	246	5	10	8.84	1.169
Pharmacist understands his/her client need.	246	4	10	8.89	1.220
Pharmacist does not provide his/her client unnecessary medicine.	246	4	10	8.95	1.254
Pharmacist pays attention to solve his/her client health problem.	246	4	10	8.98	1.258
Pharmacist thoroughly asks his/her client before providing medicine.	246	4	10	9.03	1.218
Pharmacist answers his/her client questions with sufficient details.	246	3	10	9.06	1.355
Pharmacist provides service cleanly.	246	5	10	9.09	1.222
Pharmacist provides information with clear and understanding language.	246	2	10	9.11	1.286
Pharmacist provides service worth with his/her client money.	246	4	10	9.18	1.179
Pharmacist has the knowledge to provide medicine, answer questions and give advices.	246	5	10	9.2	1.126

Table 4.5: Mean score of client desire expectation level on each item of community pharmacy service quality (continued)

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean Score of Desire Expectation	Std.
Pharmacist provides service with complete information of medication names and indications.	242	6	10	9.22	1.122
Pharmacist friendly provides service.	246	5	10	9.25	1.018
Pharmacist provides service, health information and advice relevant to his/her client need.	246	5	10	9.25	1.065
Pharmacist provides service with polite manner.	242	5	10	9.28	1.067
Pharmacist is willing to service his/her client.	246	5	10	9.31	1.027
Pharmacist makes his/her client feel safe to take medication.	246	5	10	9.35	1.033
Pharmacist provides service accurately.	246	5	10	9.38	0985
Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	246	5	10	9.41	1.083
Pharmacist provides service accurately.	246	5	10	9.38	0985
Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	246	5	10	9.41	1.083
Pharmacist provides service with honest.	246	5	10	9.49	0.955
Grand mean of desire service expectation				8.91	
Standard deviation of grand mean				0.48	

Adequate (Minimum) level of expectation on community pharmacy service quality

Client minimum expectation was defined as the service minimal level of adequacy that client could accept from community pharmacy. The range of client minimum expectation on each dimension of community pharmacy service quality was found from 5.01 to 5.6 at 11-point scale, with the highest score on reliability dimension, and the lowest score on tangibles dimension. The minimum expectation levels on tangibles, assurance, reliability, responsiveness, empathy, and communication dimensions were 5.01, 5.34, 5.6, 5.38, 5.15 and 5.36 at 11-point scale, respectively. When analyzing in each item, the minimum expectation levels were ranged from 4.32 to 5.74 at 11-point scale, with the highest score on “Pharmacist provides service with honest” item, and the lowest score on “Pharmacist records or can remember his/her client past medication” item. The mean scores of client minimum expectation on each item of community pharmacy service quality were presented from the least minimum level of expectation to the most minimum level of expectation at Table 4.6.

Table 4.6: Mean score of client minimum expectation level on each item of community pharmacy service quality

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean Score of Minimum Expectation	Std.
Pharmacist records or can remember his/her client past medication.	243	0	9	4.32	2.211
Pharmacist has the private zone for counseling when needed.	246	0	9	4.61	1.961
Pharmacist pays attention to his/her client gesture.	246	0	9	4.8	2.110
Pharmacist understands his/her client feeling.	246	0	10	4.84	2.280
Pharmacist understands his/her client health problem.	246	0	9	4.97	2.113
Pharmacist provides service with sufficient time.	243	0	9	5.01	1.919
Pharmacist does not let his/her client wait long for receiving service.	246	0	10	5.07	2.075
Pharmacist understands his/her client need.	246	0	10	5.1	2.144

Table 4.6: Mean score of client minimum expectation level on each item of community pharmacy service quality (continued)

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean Score of Minimum Expectation	Std.
Pharmacist pays attention to solve his/her client health problem.	246	0	10	5.12	2.062
Pharmacist appears clean.	246	0	9	5.15	1.873
Pharmacist does not disclose his/her client health problem.	246	0	10	5.22	2.255
Pharmacist does not provide his/her client unnecessary medicine.	246	0	10	5.22	2.246
Pharmacist asks his/her client back to see how well his/her client understands the information.	243	0	9	5.29	1.878
Pharmacist has the knowledge to provide medicine, answer questions and give advices.	246	1	10	5.3	1.836
Pharmacist provides service worth with his/her client money.	246	1	10	5.35	2.109
Pharmacist answers his/her client questions with sufficient details.	246	0	10	5.35	2.086
Pharmacist provides service cleanly.	242	0	9	5.42	1.927
Pharmacist provides service with complete information of medication names and indications.	246	0	10	5.46	2.099
Pharmacist is willing to service his/her client.	246	0	10	5.46	2.065
Pharmacist provides service, health information and advice relevant to his/her client need.	246	0	10	5.49	2.139
Pharmacist provides information with clear and understanding language.	246	0	10	5.49	2.174
Pharmacist provides service accurately.	246	1	10	5.57	2.133

Table 4.6: Mean score of client minimum expectation level on each item of community pharmacy service quality (continued)

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean Score of Minimum Expectation	Std.
Pharmacist thoroughly asks his/her client before providing medicine.	243	0	10	5.57	2.012
Pharmacist friendly provides service.	246	0	10	5.58	2.100
Pharmacist provides service with polite manner.	246	0	10	5.59	2.018
Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	246	1	10	5.62	2.084
Pharmacist makes his/her client feel safe to take medication.	246	0	10	5.66	1.909
Pharmacist provides service with honest.	246	0	10	5.74	2.141

Zone of tolerance of expectation on community pharmacy service quality

The client zone of tolerance of expectation on community pharmacy service was defined as the extent between client desired expectation and client minimum expectation level and as a threshold level of service client would accept without being dissatisfied. The result indicated that client had the zone of tolerance of expectation on each dimension and each item of community pharmacy service quality at between 3 and 4 at 11-point scale. When analyzing in each dimension, the zone of tolerance of expectation were ranged from 3.45 to 3.79 at 11-point scale. The highest extent was on reliability dimension, and the lowest extent was on tangibles dimension. The zone of tolerance of expectation extents on tangibles, assurance, reliability, responsiveness, empathy, and communication dimensions were 3.45, 3.72, 3.79, 3.77, 3.61 and 3.62 at 11-point scale, respectively. The mean scores of client zone of tolerance of expectation on each dimension of community pharmacy service quality were presented at Figure 4.1.

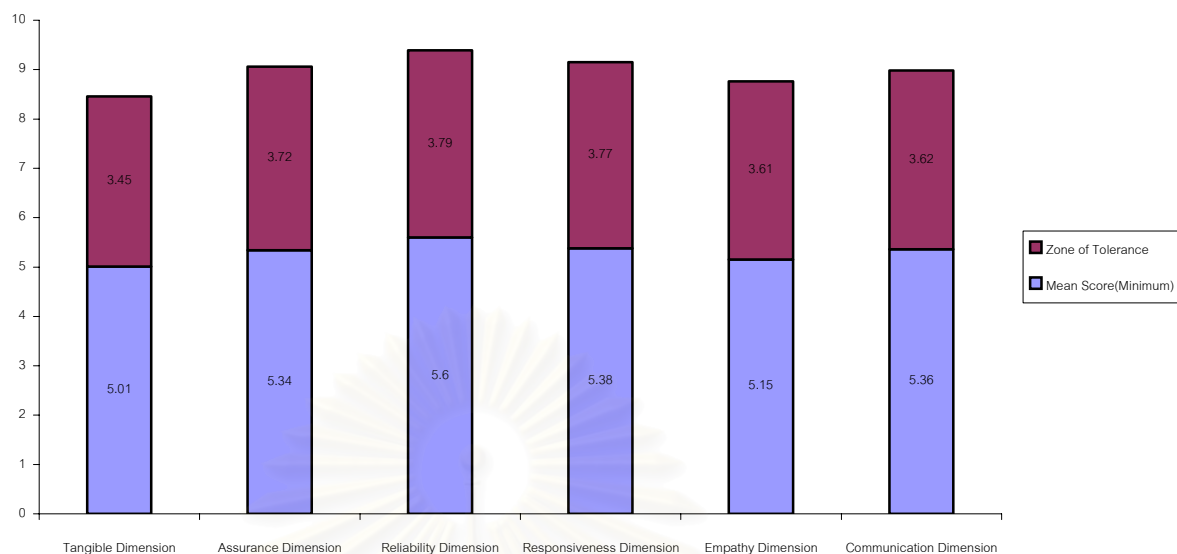


Figure 4.1: Mean score of client zone of tolerance of expectation level on each dimension of community pharmacy service quality

When analyzing each item, the zone of tolerance of expectation extents were ranged from 2.91 to 3.9 at 11-point scale. The highest extent was on “Pharmacist pays attention to solve his/her client health problem” item, and the lowest extent was on “Pharmacist has the private zone for counseling when needed” item. The mean scores of client zone of tolerance of expectation on each item of community pharmacy service quality were presented from the least zone of tolerance of expectation level to the most zone of tolerance of expectation level at Table 4.7.

Table 4.7: Mean score of client zone of tolerance of expectation level on each item of community pharmacy service quality

Items of Community Pharmacy Service Quality	Mean Score of Zone of Tolerance of Expectation	Dimension
Pharmacist has the private zone for counseling when needed.	2.91	Tangible
Pharmacist pays attention to his/her client gesture.	3.4	Empathy
Pharmacist does not disclose his/her client health problem.	3.41	Assurance
Pharmacist records or can remember his/her client past medication.	3.43	Tangible
Pharmacist thoroughly asks his/her client before providing medicine.	3.46	Empathy
Pharmacist asks his/her client back to see how well his/her client understands the information.	3.5	Communication
Pharmacist understands his/her client feeling.	3.51	Empathy
Pharmacist appears clean.	3.57	Tangible
Pharmacist does not let his/her client wait long for receiving service.	3.61	Responsiveness
Pharmacist provides information with clear and understanding language.	3.62	Communication
Pharmacist understands his/her client health problem.	3.65	Empathy
Pharmacist provides service cleanly.	3.67	Tangible
Pharmacist friendly provides service.	3.67	Responsiveness
Pharmacist makes his/her client feel safe to take medication.	3.69	Assurance
Pharmacist provides service with polite manner.	3.69	Responsiveness
Pharmacist answers his/her client questions with sufficient details.	3.71	Communication
Pharmacist does not provide his/her client unnecessary medicine.	3.73	Assurance
Pharmacist provides service with honest.	3.75	Responsiveness
Pharmacist provides service with complete information of medication names and indications.	3.76	Tangible
Pharmacist provides service, health information and advice relevant to his/her client need.	3.76	Empathy
Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	3.79	Reliability
Pharmacist understands his/her client need.	3.79	Empathy
Pharmacist provides service accurately.	3.81	Reliability

Table 4.7: Mean score of client zone of tolerance of expectation level on each item of community pharmacy service quality (continued)

Items of Community Pharmacy Service Quality	Mean Score of Zone of Tolerance of Expectation	Dimension
Pharmacist provides service worth with his/her client money.	3.83	Assurance
Pharmacist provides service with sufficient time.	3.83	Responsiveness
Pharmacist is willing to service his/her client.	3.85	Responsiveness
Pharmacist pays attention to solve his/her client health problem.	3.86	Empathy
Pharmacist has the knowledge to provide medicine, answer questions and give advices.	3.9	Assurance

Client evaluation on community pharmacy service performance quality

Client evaluated community pharmacy service performance quality of each dimension at the range from 7.7 to 8.7 at 11-point scale, with the highest score on responsiveness dimension, and the lowest score on tangibles dimension. The mean scores of client evaluation on tangibles, assurance, reliability, responsiveness, empathy, and communication dimensions were 7.7, 8.38, 8.47, 8.7, 8.26 and 8.58 at 11-point scale, respectively. When analyzing in each item, the mean scores of client evaluation were ranged from 6.21 to 8.87 at 11-point scale with the highest score on “Pharmacist is willing to service his/her client” item, and the lowest score on “Pharmacist records or can remember his/her client past medication” item. The mean scores of client evaluation on each item of community pharmacy service performance quality were presented from the least mean scores of client evaluation to the highest mean scores of client evaluation at Table 4.8.

Table 4.8: Mean score of client evaluation on each item of community pharmacy service quality

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean of Performance Score (Client)	Std.
Pharmacist records or can remember his/her client past medication.	246	0	10	6.21	2.733
Pharmacist has the private zone for counseling when needed.	246	0	10	7.41	1.914

Table 4.8: Mean score of client evaluation on each item of community pharmacy service quality (continued)

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean of Performance Score (Client)	Std.
Pharmacist understands his/her client health problem.	246	0	10	7.96	2.041
Pharmacist understands his/her client feeling.	246	1	10	7.96	1.808
Pharmacist pays attention to his/her client gesture.	246	0	10	8.04	1.911
Pharmacist understands his/her client need.	246	2	10	8.17	1.695
Pharmacist does not disclose his/her client health problem.	246	0	10	8.2	2.011
Pharmacist asks his/her client back to see how well his/her client understands the information.	246	3	10	8.23	1.738
Pharmacist provides service worth with his/her client money.	246	0	10	8.29	1.918
Pharmacist appears clean.	246	4	10	8.3	1.789
Pharmacist provides service cleanly.	246	3	10	8.3	1.735
Pharmacist provides service with complete information of medication names and indications.	246	4	10	8.3	1.680
Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	246	3	10	8.31	1.850
Pharmacist provides service with sufficient time.	246	3	10	8.31	1.806
Pharmacist does not provide his/her client unnecessary medicine.	246	0	10	8.34	2.059

Table 4.8: Mean score of client evaluation on each item of community pharmacy service quality (continued)

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean of Performance Score (Client)	Std.
Pharmacist pays attention to solve his/her client health problem.	246	3	10	8.35	1.688
Pharmacist makes his/her client feel safe to take medication.	246	4	10	8.46	1.677
Pharmacist does not let his/her client wait long for receiving service.	246	4	10	8.59	1.522
Pharmacist has the knowledge to provide medicine, answer questions and give advices.	246	4	10	8.61	1.659
Pharmacist provides service accurately.	246	3	10	8.62	1.707
Pharmacist provides service, health information and advice relevant to his/her client need.	246	4	10	8.63	1.643
Pharmacist answers his/her client questions with sufficient details.	246	4	10	8.69	1.563
Pharmacist thoroughly asks his/her client before providing medicine.	246	4	10	8.71	1.727
Pharmacist provides service with honest.	246	3	10	8.76	1.722
Pharmacist provides service with polite manner.	246	4	10	8.82	1.575

Table 4.8: Mean score of client evaluation on each item of community pharmacy service quality (continued)

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean of Performance Score (Client)	Std.
Pharmacist provides information with clear and understanding language.	246	4	10	8.83	1.588
Pharmacist friendly provides service.	246	3	10	8.86	1.572
Pharmacist is willing to service his/her client.	246	4	10	8.87	1.565
Grand mean of client evaluation				8.33	
Standard deviation of grand mean				0.53	

Pharmacist evaluation on community pharmacy service performance quality

Pharmacist evaluated their own service performance quality of each dimension with the range from 6.88 to 8.92 at 11-point scale, which the highest score on assurance dimension, and the lowest score on tangibles dimension. The mean scores of pharmacist evaluation on tangibles, assurance, reliability, responsiveness, empathy, and communication dimensions were 6.88, 8.92, 8.86, 8.64, 8.41 and 8.31 at 11-point scale, respectively. When analyzing in each item, the mean scores of pharmacist evaluation were ranged from 3.98 to 9.44 at 11-point scale, which the highest score on “Pharmacist does not disclose his/her client health problem” item, and the lowest score on “Pharmacist records or can remember his/her client past medication” item. The mean scores of pharmacist evaluation on each item of community pharmacy service performance quality were presented from the least mean scores of pharmacist evaluation to the highest mean scores of pharmacist evaluation at Table 4.9.

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Table 4.9: Mean score of pharmacist evaluation on each item of community pharmacy service quality

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean of Performance Score (Pharmacist)	Std.
Pharmacist records or can remember his/her client past medication.	242	0	10	3.98	2.685
Pharmacist has the private zone for counseling when needed.	246	0	10	6.49	2.446
Pharmacist provides service with complete information of medication names and indications.	246	2	10	7.72	1.831
Pharmacist appears clean.	246	4	10	8.02	1.580
Pharmacist does not let his/her client wait long for receiving service.	246	2	10	8.02	1.640
Pharmacist understands his/her client feeling.	243	4	10	8.02	1.399
Pharmacist asks his/her client back to see how well his/her client understands the information.	246	0	10	8.03	1.562
Pharmacist provides service with sufficient time.	246	4	10	8.05	1.457
Pharmacist provides service cleanly.	246	5	10	8.21	1.345
Pharmacist understands his/her client need.	246	4	10	8.23	1.268
Pharmacist understands his/her client health problem.	246	5	10	8.26	1.132
Pharmacist answers his/her client questions with sufficient details.	246	6	10	8.28	1.117
Pharmacist provides service, health information and advice relevant to his/her client need.	246	4	10	8.52	1.173

Table 4.9: Mean score of pharmacist evaluation on each item of community pharmacy service quality (continued)

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean of Performance Score (Pharmacist)	Std.
Pharmacist pays attention to his/her client gesture.	243	6	10	8.57	1.016
Pharmacist thoroughly asks his/her client before providing medicine.	246	6	10	8.63	0.898
Pharmacist provides information with clear and understanding language.	246	6	10	8.63	1.012
Pharmacist has the knowledge to provide medicine, answer questions and give advices.	246	5	10	8.65	1.136
Pharmacist makes his/her client feel safe to take medication.	240	6	10	8.67	0.996
Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	246	5	10	8.76	1.234
Pharmacist provides service with polite manner.	242	5	10	8.78	1.096
Pharmacist pays attention to solve his/her client health problem.	246	7	10	8.78	0.873
Pharmacist friendly provides service.	246	5	10	8.91	1.073
Pharmacist does not provide his/her client unnecessary medicine.	246	5	10	8.96	1.124
Pharmacist provides service accurately.	246	7	10	8.96	0.882
Pharmacist is willing to service his/her client.	246	5	10	8.98	1.084
Pharmacist provides service worth with his/her client money.	246	6	10	9.01	0.954

Table 4.9: Mean score of pharmacist evaluation on each item of community pharmacy service quality (continued)

Items of Community Pharmacy Service Quality	Number	Min.	Max.	Mean of Performance Score (Pharmacist)	Std.
Pharmacist provides service with honest.	246	7	10	9.14	0.950
Pharmacist does not disclose his/her client health problem.	246	5	10	9.44	0.923

Perceived service quality of client and satisfaction on community pharmacy service quality

The client perception of community pharmacy service quality was calculated by the mean differences between client desired service expectation level and client evaluation on community pharmacy service performance. The results showed that the mean scores of client desire expectation were greater than client performance score (evaluation on community pharmacy service quality) for every dimension and every item of community pharmacy service quality, which meant that, using gap model, clients dissatisfied with the services received for all dimensions and all items of community pharmacy service quality.

The mean scores of client perception of community pharmacy service quality were ranged from -0.92 to -0.4 at 11-point scale, which the least dissatisfaction on communication dimension and the most dissatisfaction on reliability dimension. The mean scores of client perception of community pharmacy service quality on tangibles, assurance, reliability, responsiveness, empathy, and communication dimensions were -0.76, -0.68, -0.92, -0.45, -0.5 and -0.4 at 11-point scale, respectively.

When analyzing in each item, the mean scores of client perception of community pharmacy service quality were ranged from -1.54 to -0.09 at 11-point scale. The least dissatisfaction was on “Pharmacist does not let his/her client wait long for receiving service” item, and the most dissatisfaction was on “Pharmacist records or can remember his/her client past medication” item. The mean scores of client perception of community pharmacy service quality on each item were presented from the least dissatisfaction to the most dissatisfaction at Table 4.10.

Table 4.10: Mean score of client perception of community pharmacy service quality on each item of community pharmacy service quality

Items of Community Pharmacy Service Quality	Perceived Service Quality
Pharmacist does not let his/her client wait long for receiving service.	-0.09
Pharmacist has the private zone for counseling when needed.	-0.11
Pharmacist pays attention to his/her client gesture.	-0.16
Pharmacist provides information with clear and understanding language.	-0.28
Pharmacist thoroughly asks his/her client before providing medicine.	-0.32
Pharmacist answers his/her client questions with sufficient details.	-0.37
Pharmacist friendly provides service.	-0.39
Pharmacist understands his/her client feeling.	-0.39
Pharmacist appears clean.	-0.42
Pharmacist does not disclose his/her client health problem.	-0.43
Pharmacist is willing to service his/her client.	-0.44
Pharmacist provides service with polite manner.	-0.46
Pharmacist provides service with sufficient time.	-0.53
Pharmacist asks his/her client back to see how well his/her client understands the information.	-0.56
Pharmacist has the knowledge to provide medicine, answer questions and give advices.	-0.59
Pharmacist does not provide his/her client unnecessary medicine.	-0.61
Pharmacist provides service, health information and advice relevant to his/her client need.	-0.62
Pharmacist pays attention to solve his/her client health problem.	-0.63
Pharmacist understands his/her client health problem.	-0.66
Pharmacist understands his/her client need.	-0.72
Pharmacist provides service with honest.	-0.73
Pharmacist provides service accurately.	-0.76
Pharmacist provides service cleanly.	-0.79
Pharmacist makes his/her client feel safe to take medication.	-0.89
Pharmacist provides service worth with his/her client money.	-0.89
Pharmacist provides service with complete information of medication names and indications.	-0.92
Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	-1.1
Pharmacist records or can remember his/her client past medication.	-1.54

One-Sample Test of Perceived service quality of client

Though, the result showed that the mean scores of client desire expectation were greater than client performance scores (evaluation on community pharmacy service quality) for all dimensions and items of community pharmacy service quality, the statistical method was needed for confirmation. To confirm that the data of client perceive service quality were actually significantly different from “0,” the “One-Sample Compare Means Test” was used as a statistical method.

The result of One-Sample Compare Means Test of client perception of community pharmacy service quality on each dimension of community pharmacy service quality was shown in details at Table 4.11.

Table 4.11: The result of One-Sample Compare Means Test of client perception of community pharmacy service quality on each dimension of community pharmacy service quality

Dimension of Community Pharmacy Service	Mean Scores of Perceived Service Quality	P-Value
Tangibles	-0.7521	0.000*
Assurance	-0.6797	0.000*
Reliability	-0.9268	0.000*
Responsiveness	-0.4594	0.000*
Empathy	-0.4791	0.000*
Communication	-0.4051	0.000*

The result of One-Sample Compare Means Test of client perception of community pharmacy service quality on each item of community pharmacy service quality was shown in details at Table 4.12.

Table 4.12: The result of One-Sample Compare Means Test of client perception of community pharmacy service quality on each item of community pharmacy service quality

Items of Community Pharmacy Service Quality	Perceived Service Quality	P-value
Pharmacist appears clean.	-0.42	0.001*
Pharmacist has the private zone for counseling when needed.	-0.11	0.453
Pharmacist provides service cleanly.	-0.79	0.000*
Pharmacist provides service with complete information of medication names and indications.	-0.92	0.000*

Table 4.12: The result of One-Sample Compare Means Test of client perception of community pharmacy service quality on each item of community pharmacy service quality (continued)

Items of Community Pharmacy Service Quality	Perceived Service Quality	P-value
Pharmacist records or can remember his/her client past medication.	-1.54	0.000*
Pharmacist has the knowledge to provide medicine, answer questions and give advices.	-0.59	0.000*
Pharmacist makes his/her client feel safe to take medication.	-0.89	0.000*
Pharmacist does not disclose his/her client health problem.	-0.43	0.004*
Pharmacist does not provide his/her client unnecessary medicine.	-0.61	0.000*
Pharmacist provides service worth with his/her client money.	-0.89	0.000*
Pharmacist provides service accurately.	-0.76	0.000*
Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	-1.1	0.000*
Pharmacist is willing to service his/her client.	-0.44	0.000*
Pharmacist provides service with sufficient time.	-0.53	0.000*
Pharmacist provides service with polite manner.	-0.46	0.000*
Pharmacist friendly provides service.	-0.39	0.000*
Pharmacist provides service with honest.	-0.73	0.000*
Pharmacist does not let his/her client wait long for receiving service.	-0.09	0.359
Pharmacist thoroughly asks his/her client before providing medicine.	-0.32	0.004*
Pharmacist provides service, health information and advice relevant to his/her client need.	-0.62	0.000*
Pharmacist pays attention to solve his/her client health problem.	-0.63	0.000*
Pharmacist pays attention to his/her client gesture.	-0.16	0.235
Pharmacist understands his/her client health problem.	-0.66	0.000*
Pharmacist understands his/her client need.	-0.72	0.000*
Pharmacist understands his/her client feeling.	-0.39	0.006*
Pharmacist provides information with clear and understanding language.	-0.28	0.008*
Pharmacist answers his/her client questions with sufficient details.	-0.37	0.000*
Pharmacist asks his/her client back to see how well his/her client understands the information.	-0.56	0.000*

Using the statistic of One-Sample Compare Means Test, the result showed that there were significant differences of client perception of community pharmacy service quality and “0” toward every dimension and most items (25 from 28 items) of community pharmacy service. Three items that the differences of client perception of community pharmacy service quality and “0” were not significantly different were the items of “Pharmacist has the private zone for counseling when needed,” “Pharmacist does not let his/her client wait long for receiving service,” and “Pharmacist pays attention to his/her client gesture.” Conceptually, this meant that pharmacist performance about these three aspects statistically met client desire expectation.

Comparison of client evaluation on service performance and pharmacist evaluation on self service performance on community pharmacy service quality

The paired-differences of performance score were analyzed between client and pharmacist perspectives. It was found that the evaluation on community pharmacy service performance between client and pharmacist perspectives was significantly different ($\alpha = 0.05$) in tangibles, assurance, reliability and communication dimension of community pharmacy service quality. However, two dimensions that the performance evaluation between client and pharmacist perspectives were not significantly different were the responsiveness and empathy dimensions. The comparison of the evaluation on each dimension of community pharmacy service quality from client and pharmacist perspectives were shown in details at Table 4.13.

Table 4.13: The comparison of the evaluation on each dimension of community pharmacy service quality from client and pharmacist perspectives

Dimension of Community Pharmacy Service Quality	Mean of Performance Score (Client)	Mean of Performance Score (Pharmacist)	P-value
Tangibles Dimension	7.7	6.88	0.000*
Assurance Dimension	8.38	8.92	0.000*
Reliability Dimension	8.47	8.86	0.001*
Responsiveness Dimension	8.7	8.64	0.392
Empathy Dimension	8.26	8.41	0.157
Communication Dimension	8.58	8.31	0.017*

The comparison of the evaluation on each item of community pharmacy service quality from client and pharmacist perspectives were shown in details at Table 4.14.

Table 4.14: The comparison of the evaluation on each item of community pharmacy service quality from client and pharmacist perspectives

Items of Community Pharmacy Service Quality	Mean of Performance Score (Client)	Mean of Performance Score (Pharmacist)	P-value
Pharmacist appears clean.	8.3	8.02	0.047*
Pharmacist has the private zone for counseling when needed.	7.41	6.49	0.000*
Pharmacist provides service cleanly.	8.3	8.21	0.524
Pharmacist provides service with complete information of medication names and indications.	8.3	7.72	0.000*
Pharmacist records or can remember his/her client past medication.	6.21	3.98	0.000*
Pharmacist has the knowledge to provide medicine, answer questions and give advices.	8.61	8.65	0.479
Pharmacist makes his/her client feel safe to take medication.	8.46	8.67	0.041*
Pharmacist does not disclose his/her client health problem.	8.2	9.44	0.000*
Pharmacist does not provide his/her client unnecessary medicine.	8.34	8.96	0.000*
Pharmacist provides service worth with his/her client money.	8.29	9.01	0.000*
Pharmacist provides service accurately.	8.62	8.96	0.003*
Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	8.31	8.76	0.001*
Pharmacist is willing to service his/her client.	8.87	8.98	0.255
Pharmacist provides service with sufficient time.	8.31	8.05	0.072
Pharmacist provides service with polite manner.	8.82	8.78	0.532
Pharmacist friendly provides service.	8.86	8.91	0.671

Table 4.14: The comparison of the evaluation on each item of community pharmacy service quality from client and pharmacist perspectives (continued).

Items of Community Pharmacy Service Quality	Mean of Performance Score (Client)	Mean of Performance Score (Pharmacist)	P-value
Pharmacist provides service with honest.	8.76	9.14	0.001*
Pharmacist does not let his/her client wait long for receiving service.	8.59	8.02	0.000*
Pharmacist thoroughly asks his/her client before providing medicine.	8.71	8.63	0.515
Pharmacist provides service, health information and advice relevant to his/her client need.	8.63	8.52	0.356
Pharmacist pays attention to solve his/her client health problem.	8.35	8.78	0.001*
Pharmacist pays attention to his/her client gesture.	8.04	8.57	0.000*
Pharmacist understands his/her client health problem.	7.96	8.26	0.032*
Pharmacist understands his/her client need.	8.17	8.23	0.605
Pharmacist understands his/her client feeling.	7.96	8.02	0.735
Pharmacist provides information with clear and understanding language.	8.83	8.63	0.099
Pharmacist answers his/her client questions with sufficient details.	8.69	8.28	0.001*
Pharmacist asks his/her client back to see how well his/her client understands the information.	8.23	8.03	0.179

Therefore, it meant that there were significant difference between client and pharmacist perceptions toward some dimensions and some items of community pharmacy service.

Comparison of the mean differences on importance score from client and pharmacist perspectives on each dimension of community pharmacy service quality

The current study also examined the significant differences on importance score from client and pharmacist perspectives on each dimension of community pharmacy service quality. It was conducted by asking client and pharmacist to rate the importance of each dimension of community pharmacy service by assigning score out of 100 points for each dimension such as allocating the higher scores to the more important dimension, and the lower scores for the less important dimension.

From client perspective, clients rated responsiveness as the most importance. They ranked assurance, reliability, tangibles and empathy as the second, third, fourth and fifth, respectively. Communication was ranked as the least importance.

From pharmacist perspective, pharmacists ranked reliability as the most importance. They ranked responsiveness, empathy, assurance and communication as the second, third, fourth and fifth, respectively. Tangibles was ranked as the least importance.

The comparison of the mean differences on importance score from client and pharmacist perspectives on each dimension of community pharmacy service quality were shown at Table 4.15.

Table 4.15: Comparison of the mean differences on importance score from client and pharmacist perspectives on each dimension of community pharmacy service quality

Dimension of Community Pharmacy Service Quality	Importance Score (Pharmacist)			Importance Score (Client)			P-Value
	Mean	N	Std.	Mean	N	Std.	
The appearance of community pharmacist.	82.28	239	12.67	84.40	239	13.11	0.053
The community pharmacist's ability to perform the service dependably and accurately.	92.57	239	8.71	86.52	239	11.99	0.000*
The community pharmacist's willingness to help client and provide a prompt service.	92.01	239	8.45	88.66	239	13.63	0.000*
The knowledge and courtesy of the community pharmacist and his/her ability to convey trust and confidence.	90.96	239	9.79	87.33	239	13.73	0.001*
The caring, individualized attention the community pharmacist provides his/her client.	91.38	239	8.415	85.52	239	14.21	0.000*
The communication of pharmacist.	88.45	239	8.799	85.13	239	14.910	0.005*

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CHAPTER V

DISCUSSION AND CONCLUSION

This chapter provided an interpretation and a discussion of the study on comparison of client and pharmacist perceptions about community pharmacy service quality, comparison of the importance ranking from client and pharmacist perspectives on each dimension of community pharmacy service quality, perceived service quality of client and satisfaction on community pharmacy service quality, zone of tolerance of expectation and importance ranking of each dimension of community pharmacy service quality, and performance-based VS perception-minus-expectations measurement of community pharmacy service quality. Limitations of the study were presented, and future research was introduced as well. The last section of this chapter was the conclusion and recommendation.

Comparison of client and pharmacist perceptions about community pharmacy service quality

The result partially supported the hypothesis that there were significant differences between client and pharmacist perceptions about pharmacist performance. The analysis of client and pharmacist perceptions toward each dimension of community pharmacy service quality showed that there were significant differences ($\alpha = 0.05$) between client and pharmacist perceptions toward the tangibles, assurance, reliability and communication dimension of community pharmacy service quality except the responsiveness and empathy dimension.

When analyzing in each item of every dimension of community pharmacy service quality, there were significant differences between client and pharmacist perceptions toward some dimensions and some items of community pharmacy service. It was found that evaluation of community pharmacy service quality from client and pharmacist perspectives were different in the items of appearing clean, having the private zone for counseling when need; providing service with complete information of medication names and indications; and recording or remembering client past medication in the dimension of tangibles. There were four quality items, which were making client feel safe to take medication; not disclosing client health problem; not providing client unnecessary medicine; and providing service worth with client money, in the assurance dimension that had significant different between pharmacist and client perception. The different quality perception between pharmacist and client in the dimension of responsiveness were providing service with honest and not letting client wait long for receiving service. Providing service accurately and checking type, number and expiry date of medicine before providing medication to client were the two quality items that were significant different perception between clients and pharmacists in the aspect of reliability. For empathy dimension, the items that both pharmacist and client perceived significantly different service quality were paying attention to solve client health problem, paying attention to client gesture, understanding client health problem. Only one item, answering client questions with sufficient details, in communication dimension that they perceived significant different service quality.

Items that pharmacists rated their performance less than clients rated pharmacist performance were appearing clean, having the private zone for counseling when need; providing service with complete information of medication names and indications; and recording or remembering client past medication, not letting client wait long for receiving service, and answering client questions with sufficient details.

Comparison of the importance ranking from client and pharmacist perspectives on each dimension of community pharmacy service quality

The result supported the hypothesis that there were significant differences between client and pharmacist perceptions about the importance of service dimensions. The study showed that there were significant differences between client and pharmacist perceptions toward the importance scores from client and pharmacist perspectives on each dimension of community pharmacy service quality.

From client perspective, Clients ranked responsiveness, the willingness of pharmacist to help them and provided a prompt service, as the most importance. This dimension also emphasized attentiveness and promptness in dealing with client requests, questions and problems. Clients ranked assurance as the second significant dimension. Assurance was defined as the pharmacist's knowledge and courtesy and the ability to inspire client trust and confidence. The last dimension that client ranked the least importance among these six dimensions was communication which was defined as keeping the client informed with clear and adequate information in a language that was easy to understand. The dimension ranking according to importance score rating from client perspective was shown in Table 5.1.

From pharmacist perspective, pharmacist ranked reliability which was defined as the ability to perform the promised service dependably and accurately as the most significance in providing services to clients. In this study, reliability meant that the community pharmacy delivered on its promises- promises about service, time, and problem resolution. Pharmacist thought that the willingness to help clients and provided a prompt service, dimension of responsiveness, was the second importance dimension in providing care to clients. In this study, the appearance of the pharmacist, the equipment and service time of pharmacist were used to evaluate the tangible dimension of community pharmacy services. This dimension was ranked by pharmacists as the least significance among six dimensions in providing service to the clients. The dimension ranking according to importance score rating from pharmacist perspective was shown in Table 5.1.

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Table 5.1: Dimension ranking according to importance score rating from client and pharmacist perspective

Ranking	Client	Pharmacist
1.	Responsiveness	Reliability
2.	Assurance	Responsiveness
3.	Reliability	Empathy
4.	Tangibles	Assurance
5.	Empathy	Communication
6.	Communication	Tangibles

Perceived service quality of client and satisfaction on community pharmacy service quality

The analysis of client perception of community pharmacy service quality by using gap analysis model showed that clients dissatisfied with the services received for every dimension and almost all items of community pharmacy service quality. This result was consistent with the previous studies which used a gap-based comparison of the expectations and performance perceptions of clients as a measurement of service quality. Many studies in Thailand and other countries showed the negative number of client perceived service quality (Tongpae, 1997; DOUNGDEEN, 1996; KHAMYU, 1995; ZEITHAML, PARASURAMAN and BERRY, 1990). Therefore, the results from the present study supported the finding that when focusing on desired service expectation, the service quality never exceeded this level of expectation.

5.1 Perceived service quality of client and satisfaction on each dimension of community pharmacy service quality using gap model analysis

Perceived service quality was calculated using gap model analysis by the different score between service desire expectation level and perception of actual services received. When analyzing in each dimension, the mean scores of client perceived service quality of community pharmacy service quality were ranged from -0.92 to -0.4 at 11-point scale. Clients perceived least service quality among six dimensions on reliability and most service quality on communication. The result show that client felt most dissatisfaction with the ability to perform the promised service dependability and accurately same as other studies using SERVQUAL as the framework (Zeithaml, Parasuraman, and Berry, 1990)

Therefore, to improve the community pharmacy service quality and to gain client satisfactions, the policy maker, pharmacist and owner should realize that interaction did not just only verbal communication, but non-verbal parts were the important part as well.

Nowadays, there is the “Standard of Drugstores Community Pharmacy Development and Accreditation” by “Pharmacy Council,” the community pharmacy that has passed the “Accreditation” will be recognized from people as the reliable community pharmacy. Therefore, the policy maker, pharmacist and owner should urge the community pharmacist to improve the quality of community pharmacy service and applied to the Accreditation Program to gain the better image especially the reliability from client perspective.

5.2 Perceived service quality of client and satisfaction on each item of community pharmacy service quality

The mean scores of client perception of community pharmacy service quality, using gap analysis, were ranged from -1.54 to -0.09. Therefore, if calculated into the percentage, the community pharmacy service quality was less than desire service level between – 15.4 % and - 9 %.

The mean scores of client desire expectation level, client evaluation, and client perception on each item of community pharmacy service quality were presented from the least dissatisfaction to the most dissatisfaction at Table 5.2.

Table 5.2: The mean scores of client desire expectation level, client evaluation, and client perceived service quality on each item of community pharmacy service quality

Items	Items of Community Pharmacy Service Quality	Mean Score (Desire)	Mean of Performance Score (Client)	Perceived Service Quality
1	Pharmacist does not let his/her client wait long for receiving service.	8.68	8.59	-0.09
2	Pharmacist has the private zone for counseling when needed.	7.52	7.41	-0.11
3	Pharmacist pays attention to his/her client gesture.	8.2	8.04	-0.16
4	Pharmacist provides information with clear and understanding language.	9.11	8.83	-0.28

Table 5.2: The mean scores of client desire expectation level, client evaluation, and client perceived service quality on each item of community pharmacy service quality (continued)

Items	Items of Community Pharmacy Service Quality	Mean Score (Desire)	Mean of Performance Score (Client)	Perceived Service Quality
5	Pharmacist thoroughly asks his/her client before providing medicine.	9.03	8.71	-0.32
6	Pharmacist answers his/her client questions with sufficient details.	9.06	8.69	-0.37
7	Pharmacist friendly provides service.	9.25	8.86	-0.39
8	Pharmacist understands his/her client feeling.	8.35	7.96	-0.39
9	Pharmacist appears clean.	8.72	8.3	-0.42
10	Pharmacist does not disclose his/her client health problem.	8.63	8.2	-0.43
11	Pharmacist is willing to service his/her client.	9.31	8.87	-0.44
12	Pharmacist provides service with polite manner.	9.28	8.82	-0.46
13	Pharmacist provides service with sufficient time.	8.84	8.31	-0.53
14	Pharmacist asks his/her client back to see how well his/her client understands the information.	8.79	8.23	-0.56
15	Pharmacist has the knowledge to provide medicine, answer questions and give advices.	9.2	8.61	-0.59

Table 5.2: The mean scores of client desire expectation level, client evaluation, and client perceived service quality on each item of community pharmacy service quality (continued)

Items	Items of Community Pharmacy Service Quality	Mean Score (Desire)	Mean of Performance Score (Client)	Perceived Service Quality
16	Pharmacist does not provide his/her client unnecessary medicine.	8.95	8.34	-0.61
17	Pharmacist provides service, health information and advice relevant to his/her client need.	9.25	8.63	-0.62
18	Pharmacist pays attention to solve his/her client health problem.	8.98	8.35	-0.63
19	Pharmacist understands his/her client health problem.	8.62	7.96	-0.66
20	Pharmacist understands his/her client need.	8.89	8.17	-0.72
21	Pharmacist provides service with honest.	9.49	8.76	-0.73
22	Pharmacist provides service accurately.	9.38	8.62	-0.76
23	Pharmacist provides service cleanly.	9.09	8.3	-0.79
24	Pharmacist makes his/her client feel safe to take medication.	9.35	8.46	-0.89
25	Pharmacist provides service worth with his/her client money.	9.18	8.29	-0.89
26	Pharmacist provides service with complete information of medication names and indications.	9.22	8.3	-0.92

Table 5.2: The mean scores of client desire expectation level, client evaluation, and client perceived service quality on each item of community pharmacy service quality (continued)

Items	Items of Community Pharmacy Service Quality	Mean Score (Desire)	Mean of Performance Score (Client)	Perceived Service Quality
27	Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	9.41	8.31	-1.1
28	Pharmacist records or can remember his/her client past medication.	7.75	6.21	-1.54

The study showed that client identified the least dissatisfaction on “Pharmacist does not let his/her client wait long for receiving service” item” (- 0.09), and the most dissatisfaction on “Pharmacist records or can remember his/her client past medication” item (- 1.54).

If considering the items that service quality was less than the desire service level more than - 10 %, there were two items; “Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client” (- 11.0 %) and “Pharmacist records or can remember his/her client past medication” (- 15.4 %). Therefore, to improve the community pharmacy service quality to gain client satisfaction, the policy maker, pharmacist and owner should pay prior task to these two items.

The result of One-Sample Compare Means Test showed that there were no significant differences of client perception of community pharmacy service quality and “0” toward three items of community pharmacy service. The three items were “Pharmacist has the private zone for counseling when needed,” “Pharmacist does not let his/her client wait long for receiving service,” and “Pharmacist pays attention to his/her client gesture.” Conceptually, this meant that pharmacist performance about these three points statistically met client desire expectation. Therefore, these three items could be set as the last three aspects for the policy maker, pharmacist and owner to improve if there are a limited resource.

To picture the explanation, all 28 items could be classified into five groups using their grand mean and standard deviation of desire expectation and performance score of community pharmacy service. The grand mean and standard deviation of desire expectation level were 8.91 and 0.48, respectively; and of performance score of community pharmacy service were 8.33 and 0.53, respectively. All items classified

into each group had desire expectation level and performance score following into the classification range as followed:

1. A very high desire service expectation level and quite high to high performance score

All items in the first group had classification range of desire service expectation level were between grand mean + 1 S.D. to grand mean + 2 S.D; and performance score were between grand mean - 1 S.D. to grand mean + 1 S.D. The items in this group were:

- Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client (Reliability) *
- Pharmacist provides service with honest (Responsiveness) *

2. A high desire service expectation level and quite high to high performance score:

All items in the second group had classification range of desire service expectation level were between grand mean to grand mean + 1 S.D; and performance score were between grand mean - 1 S.D to grand mean + 1 S.D. Items in this group were:

- Pharmacist provides information with clear and understanding language (Communication)
- Pharmacist thoroughly asks his/her client before providing medicine (Empathy)
- Pharmacist answers his/her client questions with sufficient details (Communication) *
- Pharmacist provides service with polite manner (Responsiveness)
- Pharmacist friendly provides service (Responsiveness)
- Pharmacist has the knowledge to provide medicine, answer questions and give advices (Assurance)
- Pharmacist provides service, health information and advice relevant to his/her client need (Empathy)
- Pharmacist provides service accurately (Reliability) *
- Pharmacist provides service cleanly (Tangible)
- Pharmacist makes his/her client feel safe to take medication (Assurance) *
- Pharmacist provides service worth with his/her client money (Assurance) *
- Pharmacist provides service with complete information of medication names and indications (Tangible) *
- Pharmacist does not provide his/her client unnecessary medicine (Assurance) *
- Pharmacist pays attention to solve his/her client health problem (Empathy) *
- Pharmacist is willing to service his/her client (Responsiveness)

3. A quite high desire service expectation level and quite high to high performance score:

All items in the third group had classification range of desire service expectation level were between grand mean – 1 S.D. to grand mean; and performance score were between grand mean - 1 S.D to grand mean + 1 S.D. This group consisted of:

- Pharmacist appears clean (Tangible) *
- Pharmacist does not disclose his/her client health problem (Assurance) *
- Pharmacist provides service with sufficient time (Responsiveness)
- Pharmacist understands his/her client need (Empathy)
- Pharmacist understands his/her client health problem (Empathy) *
- Pharmacist asks his/her client back to see how well his/her client understands the information (Communication)
- Pharmacist does not let his/her client wait long for receiving service (responsiveness) *

4. A quite low desire service expectation level and quite high performance score:

All items in the fourth group had classification range of desire service expectation level were between grand mean – 2 S.D. to grand mean – 1 S.D; and performance score were between grand mean - 1 S.D to grand mean. There were 2 items in this group as follow

- Pharmacist understands his/her client feeling (Empathy)
- Pharmacist pays attention to his/her client gesture (Empathy) *

5. A quite low desire service expectation level and quite low to low performance score:

All items in the fifth group had classification range of desire service expectation level were between grand mean – 2 S.D. to grand mean – 1 S.D; and performance score were between grand mean - 3 S.D to grand mean – 1 S.D. The two items in this group were

- Pharmacist records or can remember his/her client past medication (Tangible) *
- Pharmacist has the private zone for counseling when needed (Tangible) *

Remark: * meant the significant difference between pharmacist and client evaluations of pharmacist performance score

Considering the data, for the “Pharmacist checks type, number and expiry date of medicine before providing medication to his/her client” item, client rated 9.41 at 11-point scale for desired service expectation, while rated 8.31 at 11-point scale for pharmacist performance. This result evidently showed that community pharmacist

should clearly indicate his/her process of checking type, number and expiry date of medicine before providing medication to his/her client.

Moreover, the study showed that there was significant difference between client and pharmacist performance perceptions toward this item of community pharmacy. From pharmacist perspective, he/she might have the good management of inventory control and was sure that there was no expired medicine in his/her community pharmacy. Therefore, he/she might not present the process of expiry date checking of medicine before providing to client. Thus, when client rated the performance score for this item, the mean score of client was lower than of pharmacist. Therefore, to get rid of this misunderstanding, the operation manager should make a strategy to inform his/her well management on inventory control to client to gain client reliability toward this item.

Considering the data, for the “Pharmacist provides service with honest” item, from client perspective, client rated 9.49 at 11-point scale for desired service expectation, while rated 8.76 at 11-point scale for pharmacist performance. To increase the performance score to reach or exceed the desired service level of expectation toward this item which was one of the items of responsiveness dimension, the customer relationship management (CRM) should be operated. CRM is suggested as a strategy for service provider to operate to gain client satisfaction and loyalty (Kotler and Armstrong, 2004, Lovelock, 2001, and Zeithaml and Bitner, 1996). CRM is aimed to increase the relationship between service provider and receiver by developing formal, ongoing relations with client. One of confidence benefits of CRM includes feelings by client that in an established relationship there was the ability to trust the provider (Lovelock, C. 2001). Providing membership would be the most suitable method of CRM to be operated in the community pharmacy. The membership program would enhance the opportunity for community pharmacists to increase relationships with their clients. The manual or computer profile should be operated to record member information and medication history, so that community pharmacist had known who his/her current client was, and usually what use he/she made of the services offered. Increase the relationship through communication while client encountering with pharmacist would also enhance relationships between them.

Moreover, the study showed that there was significant difference between client and pharmacist performance perception toward this item of community pharmacy. From pharmacist perspective, he/she might believe in his/her honest, therefore, when he/she rated the performance score for these items, he/she rated the higher mean score than client. Thus, to increase client trust toward pharmacist honest, policy makers, pharmacists, owners, and etc. should make a strategy to operate the membership program in their community pharmacies, and urge the community pharmacist to increase the relationship through communication while client encountering with him/her.

Nowadays, people are declared about the “right of patient.” They know that they have the right to know the information about their health problem, treatment, medicine, and etc. That was why client rated 9.22 at 11-point scale for desired service expectation level toward the item of “Pharmacist provides service with complete information of medication names and indications.” This data should be notified to the community pharmacist that the completeness of information received was important

from client perspective, so that community pharmacist had to provide service with complete information of medication names and indications.

Moreover, the world is changing, and the market is very competitive. There are many community pharmacies, so that client has many choices to decide which pharmacy is good to receive the service, or which one is worth to his/her money. As the results of the current study also showed that client rated 9.18 at 11-point scale for desired service expectation level toward the item of "Pharmacist provides service worth with his/her client money," while rated 8.29 at 11-point scale for pharmacist performance. Therefore, increase the performance score to reach or exceed the desired service level of expectation toward this item should be considered.

Zeithaml and Bitner, 2003 suggested that delivering high service quality needs the translation of client expectations into service quality standards. However, service provider often experiences difficulty in setting standards to match or exceed client expectation. The community pharmacist should provide the superiority of his/her service; distinct process of providing professional service. He/she should serve client with good knowledge, skill, experience, and efficacy, so that client has the good perception toward coming to his/her community pharmacy; not just only coming to the community pharmacy to buy medicine, but to gain better health as well. The process of the "Standard of Drugstores Community Pharmacy Development and Accreditation" by "Pharmacy Council" should be practiced to gain the good perception from client. Professional approaches; pharmacy diagnosis, client medication counseling, rational drug use counseling, health related advice, chronic disease advice and drug refill, drug-therapy problem prevention, client drug profile documentation, client confidentiality service, should be practiced according to the standard and guidelines.

Nature of community pharmacy service is related to the safety of client. The cleanliness of service is also an important factor to client safety. The result of the current study strengthened the importance of providing service cleanly. Clients rated 9.09 at 11-point scale for desired service expectation level toward the item of "Pharmacist provides service cleanly." Therefore, community pharmacist should pay attention to clearly represent the cleanliness of professional service.

The study also revealed that clients rated 9.35 and 9.38 respectively at 11-point scale for desired service expectation levels, while rated 8.46 and 8.62 respectively at 11-point scale for pharmacist performance toward the two items of "Pharmacist makes his/her client feel safe to take medication," and "Pharmacist provides service accurately." Since the community pharmacy services is related to client lives, enlarging the pharmacist quality toward making clients feel safe and providing accurate service should be considered.

The community pharmacist should provide distinct professional service with good knowledge, skill, experience, and efficacy, so that client feels much confident about his/her safety toward his/her medicine, and the accuracy of pharmacy service. Nowadays, the community pharmacy that has passed the "Accreditation" will be recognized from people about the quality of service. Therefore, the policy maker, pharmacist and owner should urge the community pharmacist to improve the quality

of community pharmacy service and applied to the Accreditation Program to gain the assurance and reliability from client.

Moreover, the study showed that there were significant differences between client and pharmacist performance perceptions toward these two items of community pharmacy. From pharmacist perspective, he/she might believe in his/her knowledge, experience, efficiency, and etc., therefore, when he/she rated the performance score for these items, he/she rated the higher mean score than client. Thus, to gain client assurance and reliability toward these items, policy makers, pharmacists, owners, and etc. should make a strategy to inform or notify their professional capability to client, or urge the community pharmacists to improve the quality of community pharmacy service and apply to the Accreditation Program to gain the assurance and reliability from client.

Clients rated 9.25 and 9.03 respectively at 11-point scale for desired service expectation levels, while rated 8.63 and 8.71 respectively at 11-point scale for pharmacist performance toward the two items of “Pharmacist provides service, health information and advice relevant to his/her client need” item, and “Pharmacist thoroughly asks his/her client before providing medicine.” These data supported the nature of client need that the service should be provided according to client-oriented. As a service receiver, client wants the community pharmacist to pay much attention to his/her need. The information and advice should be provided according to his/her health problem. Moreover, before receiving medicine, client wants the community pharmacist to pay attention to ask for much detail about his/her health problem to make sure that he/she actually receives the medicine, advice and information that is suitable to his/her health problem. Therefore, to communicate pharmacist empathy toward these two items to client, the community pharmacist should pay much attention to client need, and thoroughly ask his/her client before providing medicine.

Since the community pharmacy service is related to client health and life, the knowledge of community pharmacists about disease, medicine, health related advice, and etc. must be a very crucial factor. That was why client rated 9.2 at 11-point scale for desired service expectation level toward the item of “Pharmacist has the knowledge to provide medicine, answer questions and give advices.” The policy makers, pharmacists, owners, and etc. should urge the community pharmacist to recognize the importance of knowledge. To provide the best quality of professional service, the community pharmacist must have the good knowledge about disease, medicine, health related advice, and etc. Moreover, there are the increase of disease complex and continuous development of medicine. Attending ongoing professional seminars or meetings should be encouraged to make sure that client receives the best quality of service with updated information knowledge. Therefore, to stimulate the community pharmacist to attend the professional program would be beneficial to make client assure toward this item.

The results also disclosed that client want to receive the service from service provider who provides service with friendliness and polite manner, and have a willingness to provide service by identifying his/her desired service expectation levels at 9.28, 9.31 and 9.25 respectively at 11-point scale toward the three items of “Pharmacist provides service with polite manner,” “Pharmacist is willing to service his/her client,” and “Pharmacist friendly provides service to client.” Since the

community pharmacist acts like a service provider, therefore, the qualifications of good service provider; polite manner, willing to service, and friendly provided service, are needed to be practiced. These qualifications will enhance the perception of client toward the service quality (Zeithaml and Bitner, 2003).

Therefore, to communicate pharmacist responsiveness toward these three items; “Pharmacist provides service with polite manner,” “Pharmacist is willing to service his/her client,” and “Pharmacist friendly provides service to client,” the operation manager should notify to the community pharmacist to provide service with polite manner and friendliness, and represent his/her willingness to service his/her client.

Sometimes the community pharmacist might think that the information that was provided to client is enough. However, from client perspective, it is related to his/her life. Therefore, more information is needed. Community pharmacists should provide client with all related information, health related advice, medicine, disease, and etc. to make him/her feel that he/she receives sufficient detail. However, if sufficient details are received in the sophisticated language that is hard to understand, the sufficient detail might not be able to transfer to him/her. Therefore, the easy and understanding language is important as well. From client perspective, the process of medication use might not be easy to understand. The education of client is differed, and the community pharmacist might not know about his/her level of education. In addition, client might not be familiar with the process of medication used, therefore to be sure that client understands the message that the community pharmacist provided to him/her, the sufficient detail, the clear and easily understanding language should be included to improve the quality of communication.

These were why clients rated 9.06 and 9.11 respectively at 11-point scale for desired service expectation levels toward these two items; “Pharmacist answers his/her client questions with sufficient details,” and “Pharmacist provides information with clear and understanding language.” The policy makers, pharmacists, owners, and etc. should urge the community pharmacist to attend the communication training program to gain the technique to improve community pharmacist knowledge/technique of providing service with clear and understandable language.

The study showed that there was significant difference between client and pharmacist performance perception toward the item of “Pharmacist answers his/her client questions with sufficient details.” From pharmacist perspective, he/she might believe that he/she answers his/her client questions with sufficient details, therefore, when he/she rated the performance score for this item, he/she rated the higher mean score than client.

Therefore, to enhance the quality of pharmacist communication toward these two items to client, policy makers, pharmacists, owners, and etc should urge community pharmacist to attend the communication training program to gain the technique of providing service with clear and understandable language, and should notify them to provide service with all related information, health related advice, medicine, disease, and etc. to make clients feel that they receive sufficient details.

As shown in the results, client rated 8.98 at 11-point scale for desired service expectation levels, while rated 8.35 at 11-point scale for pharmacist performance toward “Pharmacist pays attention to solve his/her client health problem” item. However, the actions that address this aspect seem too complex for client to comprehend. It would be a tough task for the community pharmacist to communicate specific actions that addressed his/her empathy to client. Sometimes just the simple act of listening or trying to help can be very impressive. For instance, the action of the community pharmacist that actually listens to his/her client would make client feel better. The community pharmacist, theoretically, needs to be able to translate the actions into client-friendly terms. He/she should have skills to communicate to client including the verbal and non-verbal activities. He/she needs ongoing training in the service skills and interactive skills that allows him/her to provide courteous, caring, responsive, and empathetic service (Zeithaml and Bitner, 1996). The technique of nondirective interviewing; actively listen, be receptive to the feelings client expresses, and reflect back the feelings expressed should be used. The verbal behavior; accept feelings, reflect feelings, non-evaluative responses (“Uh-huh, I see,” etc.), and allow client to end silent periods, and the nonverbal behavior; eye contact (look at client without staring), posture (indicate interest, relaxation), and no distracting mannerisms should be practiced among the community pharmacist.

Moreover, the study showed that there was significant difference between client and pharmacist performance perceptions toward “Pharmacist pays attention to solve his/her client health problem” item. From pharmacist perspective, he/she might believe that he/she pays attention to solve his/her client health problem, when he/she rated the performance score for this item, he/she rated the higher mean score than client. Therefore, to communicate pharmacist empathy toward these items to client, policy makers, pharmacists, owners, and etc. should provide the ongoing training in the service skills and interactive skills to community pharmacists.

The study also showed that client rated 8.95 and 8.63 respectively at 11-point scale for desired service expectation levels, while rated 8.34 and 8.2 respectively at 11-point scale for pharmacist performance toward the two items of “Pharmacist does not provide his/her client unnecessary medicine” and “Pharmacist does not disclose his/her client health problem.” To make client feel assured toward these two items, the community pharmacist need to increase the relationship with his/her client. He/she should develop the formal, non-formal and ongoing relations with client. He/she should provide service with client-friendly terms. The customer relationship management (CRM) should be operated to gain client ability to trust the service provider (Lovelock, C. 2001). Membership program should be provided to help the community pharmacist increase a relationship with his/her client.

As a perspective of pharmacist, he/she might think that the information of medication use and the advice are so easily understandable for client to practice and there is no need to double check to see how well client understands the provided information. However, a result revealed that client rated 8.79 at 11-point scale for desired service expectation levels, while rated 8.23 at 11-point scale for pharmacist performance on asking his/her client back to see how well his/her client understands the information. Therefore, checking back the understanding of client about the medication should not be ignored. Lewicki, Bowen, Hall, and Hall, 1988 identified

the benefits of two-way communication; information can flow back and forth between the message provider and receiver, enhance the mutual understanding because the receiver can ask questions, receive clarifications, and in other ways give the provider feedback on what has been heard.

It might be necessary to have sufficient time to provide consultation with client about his/her health, disease and medication since client rated 8.84 at 11-point scale for desired service expectation levels, while rated 8.31 at 11-point scale for pharmacist performance toward providing service with sufficient time. Community pharmacist should realize the importance of providing service with effective time and making client feel not only the exchange between money and medicine, but also advice and high quality of service to gain better health and relief from symptom.

The study showed that there was significant difference between client and pharmacist performance perception toward the item of "Pharmacist appears clean." From pharmacist perspective, he/she might believe that he/she looks hygienic; therefore, when pharmacist rated the performance score for this item, he/she rated the higher mean score than client rated themselves. Therefore, recommending community pharmacists to dress cleanly is necessary.

Even though the community pharmacist provides the high quality of service, client who has to wait long for receiving services might feel unsatisfied. In addition, the results showed that client rated 8.68 at 11-point scale for desired service expectation levels, while rated 8.59 at 11-point scale for pharmacist performance on not letting the client wait long for receiving service. Therefore, the first thing that the community pharmacist should do is to deal with client expectation toward this item. One way to decrease client service desire expectation level is to make client understand the trade-off; wait long to receive the high quality of service. If he/she understands this trade-off, he/she is likely to be more satisfied because his/her service desire expectation becomes more realistic. The community pharmacist should make the notice to his/her client about the time to wait. He/she should clarify to his/her client the high quality of service that he/she will receive after waiting and that was why there were plenty of clients. After waiting he/she could be confident that he/she will receive the high quality service. However, he/she should increase the service quality as well.

Moreover, the study showed that there was significant difference between client and pharmacist performance perception toward the item of "Pharmacist does not let his/her client waits long for receiving service." From pharmacist perspective, he/she might think that he/she did not let his/her client waits long for receiving service. However, the feeling of client who had to wait for the service might be different. Therefore, when he/she rated the performance score for this item, he/she rated the lower mean score than pharmacist.

The service that client usually wants from pharmacist is related to client disease and life, therefore, the feeling that his/her service provider understands his/her need and health problem must be essential for him/her. The study illustrated that client rated 8.62 and 8.89 respectively at 11-point scale for desired service expectation levels, while rated 7.96 and 8.17 respectively at 11-point scale for pharmacist performance toward the two items of "Pharmacist understands his/her client health

problem,” and “Pharmacist understands his/her client need.” This was a good sign that pharmacist had provided services with empathy which is a major personality for patient care. Though, client rated quite high performance scores for these two items, the performance scores were a bit less than client desire service expectation. To gain client satisfaction toward these two items, community pharmacist need to improve communication that more addressed client concerns. Lewicki, Bowen, Hall, and Hall, 1988 suggested the following effective way of nondirective interviewing:

- Actively listen
- Be receptive to the feelings client expresses
- Reflect back the feelings expressed

The community pharmacist should have skills to communicate to client including the verbal and non-verbal capabilities. The verbal behavior includes accept feelings, reflect feelings, nonevaluative responses (“Uh-huh, I see,” etc.), and allow client to end silent periods. The nonverbal behavior includes eye contact (look at client without staring), posture (indicate interest, relaxation), and no distracting mannerisms.

The study also showed that there was significant difference between client and pharmacist performance perception toward the item of “Pharmacist understands his/her client health problem.” From pharmacist perspective, he/she might believe that he/she understood his/her client health problem, therefore, when he/she rated the performance score for this item, he/she rated the higher mean score than client. Ongoing training in the service skills and interactive skills to the community pharmacist should be encouraged. Community pharmacists should also operate client drug profile by using computer or manual paper to record the past medication of client to assist them in memorizing client health record.

Though client identified quite low desire service level of having private zone for counseling when needed, they rated quite low performance score on this item as well. Client rated 7.52 at 11-point scale for desired service expectation levels, while rated 7.41 at 11-point scale for pharmacist performance on this item. This could reflect that reality client did not want others to hear his/her her health problem. This study confirmed that the community pharmacist should prepare some private space, so that client has the private zone for counseling when he/she need.

The study demonstrated that clients rated 8.35 and 8.2 respectively at 11-point scale for desired service expectation levels, while rated 7.96 and 8.04 respectively at 11-point scale for pharmacist performance on these two items; “Pharmacist understands his/her client feeling” item, and “Pharmacist pays attention to his/her client gesture.” Therefore, client perceived service quality for these two items were -0.39 and -0.16 respectively which meant that client dissatisfied with these two items. Therefore, increase the quality of service should be chosen. However, the actions that address these two items seem too complex for client to comprehend. The ongoing training in the service skills and interactive skills were needed. Moreover, the study showed that there was significant difference between client and pharmacist

performance perceptions toward “Pharmacist pays attention to his/her client gesture” item. From pharmacist perspective, he/she might believe that he/she pays attention to his/her client gesture, therefore, when he/she rated the performance score for this item, he/she rated the higher mean score than client. Therefore, to communicate pharmacist empathy toward this item to client, policy makers, pharmacists, owners, and etc. should provide the ongoing training in the service skills and interactive skills to community pharmacists.

5.3 Perceived service quality of client and satisfaction on community pharmacy service quality

Since client perception of community pharmacy service quality was measured by the mean differences between client desired service expectation level and client evaluation on community pharmacy service performance. The result revealed that clients dissatisfied with the services received for all dimensions and most items (22 from 28 items) of community pharmacy service quality. To reach client satisfaction, strategies for improving community pharmacy service quality must be promoted. The information received from the current study were useful for scrutinizing the real situation from client perspective as well to identify the dimensions and items of community pharmacy service that needed to improve instead of designing any strategy from only service provider perspective. In addition, if policy makers, pharmacists, owners, and etc. make a decision to design the strategy to decrease client desired service expectation, one possible way might be the refinement of messages so that the client has a realistic expectation of the service offered.

Client expectation about service tended to be strongly influenced by his/her own prior experience as client-with a particular service provider, with from last time visit, with competing services from other community pharmacies. If he/she had no relevant prior experience, client might have based his/her expectation on factors such as word-of-mouth comments, the physical appearance of the service facility, or the community pharmacy marketing efforts such as advertising. Therefore, to refine the messages so that the client has a realistic expectation of the service offered, policy makers, pharmacists, owners, and etc. should pay much attention to inform client about the provided service and physical appearance of the community pharmacy service.

Moreover, the information received from the study about the dimensions and items of community pharmacy service that client had high and very high expectation level should be distributed to community pharmacist to consider to understand which level of service quality client need and can accept from community pharmacy to improve his/her service to meet client expectation.

Zone of tolerance of expectation and importance ranking of each dimension of community pharmacy service quality

The study showed that the extent of client zone of tolerance of expectation in all service dimensions of community pharmacy service were nearly the same. The extents of zone of tolerance of expectation on tangibles, assurance, reliability, responsiveness, empathy, and communication dimensions were 3.45, 3.72, 3.79, 3.77, 3.61 and 3.62 at 11-point scale, respectively. If calculated into the percentage, the

difference of the zone of tolerance of expectation extents on each dimension was about 35 % (3.45-3.79 at 11-point scale).

According to Zeithaml and Bitner, 1996, the more important the factor, the narrower the zone of tolerance is likely to be. Therefore, from client zone of tolerance of expectation, tangibles (3.45) was the most important dimension, empathy (3.61) was the second, communication (3.62) was the third, assurance (3.72) was the fourth, responsiveness (3.77) was the fifth, and reliability (3.79) was the least important dimension.

However, if comparing the importance ranking data from client zone of tolerance of expectation on community pharmacy service quality with the data from the second part of questionnaire; client respondent was asked to allocate a total of 100 points among the six dimensions according to how important each dimension is to client, the result showed differently. Client identified responsiveness as the most significant dimension. The second, third, fourth and fifth dimensions were assurance, reliability, tangibles and empathy, respectively. The least significance among these six dimensions was communication dimension.

Moreover, if comparing the importance ranking data from client zone of tolerance of expectation on community pharmacy service quality with the data from client desired expectation on community pharmacy service quality, the result showed differently as well. According to Zeithaml and Bitner, 1996, client has higher expectations for the more important factors. Therefore, from client desired expectation, reliability (9.39) was the most important dimension, responsiveness (9.15) was the second, assurance (9.06) was the third, communication (8.98) was the fourth, empathy (8.76) was the fifth, and tangible (8.46) was the least important dimension.

Analyzing the importance ranking data from client desired expectation, client zone of tolerance of expectation on community pharmacy service quality, and with the data from the second part of questionnaire; importance score allocation, the importance ranking data from client desired expectation on community pharmacy service quality, and from the second part of questionnaire were not much different. The dimensions of reliability, assurance and responsiveness were ranked among the top three, and the dimensions of communication, empathy and tangible were ranked among the fourth to sixth significance.

The reason of difference from others might be that since the zone of tolerance of expectation extents on each dimension were nearly the same; the differences of the zone of tolerance of expectation extents on each dimension were only 3.45-3.79 at 11-point scale, therefore, it might not be appropriate to indicate the importance of each dimension from the similar extents of the zone of tolerance.

Performance-Based and Perception-Minus-Expectations Measurement of Community Pharmacy Service Quality

Concerning the comparison of performance-based and perception-minus-expectations measurement of community pharmacy service quality, the results were different and led to different strategy management. If concerning only high

performance score that client rated the community pharmacy service they received, the policy maker, pharmacist and owner might believe that pharmacist did provide community pharmacy service well and might lead to design no strategy to improve community pharmacy service quality.

If concerning both performance score and desire expectation of client, though client evaluated community pharmacy services at high performance score, client had high and very high desire expectation level of community pharmacy services, the result showed that client dissatisfied with the services they received from community pharmacy. Therefore, using perception-minus-expectations measurement of community pharmacy service quality, the policy maker, pharmacist and owner should consider the point of higher score of client desire expectation than performance score to better tailor its marketing effort to ensure client expectations are met.

Therefore, the policy maker, pharmacist and owner should consider these discrepancy information of performance-based and perception-minus-expectations measurement of community pharmacy service quality before designing any strategy to improve community pharmacy services to gain satisfaction from client.

Discussion

Five or six dimensional structure of instrument

After the several scale refinement stages of the 10 service quality dimensions, Zeithaml, Berry, and Parasuraman (1993) proposed the 5 service quality dimensions of tangibles, reliability, responsiveness, assurance and empathy. They claimed that the assurance and empathy dimensions contained items representing seven original dimensions – communication, credibility, security, competence, courtesy, understanding/knowing customers, and access (Parasuraman, Zeithaml, and Berry, 1988).

SERVQUAL has been tested in healthcare settings, and the findings have been mixed. In healthcare research there is no agreement on the number of dimensions found, with the range varying from unidimensional to nine (Man, Gemmel, Vlerick, Rijk, and Dierckx, 2002). However, the data from client and health care provider review identified the importance of communication toward the quality of Thai community pharmacy service. They identified that since the community pharmacy service was related to client live and safety, the sufficient details, clear and understanding language of information, and the double check to see how well client understands the providing information were needed. Therefore, the communication dimension including these three items was added to be the sixth dimension of the instrument in this current study.

However, the result of factor analysis of this current study also showed a five dimensional structure of community pharmacy service quality as of SERVQUAL. Therefore, the result of this current study could confirm a five dimensional structure of SERVQUAL.

However, the researcher still recommended to set communication dimension as a separate dimension, since a panel of experts determined the importance of communication toward community pharmacy service.

Instrument Result Comparison

Parasuraman, Zeithaml, and Berry (1991) suggested that the context-specific items could be used to supplement SERVQUAL, however, such items should be treated separately in analyzing the survey data since they did not fall under the conceptual domain of service quality. Moreover, the new items should be classified under the most appropriate SERVQUAL dimension to facilitate computation of the average score for each dimension. As discussed earlier, this current study added three items to be parts of communication dimension, while Zeithaml, Berry, and Parasuraman (1993) claimed that items of assurance and empathy dimension of SERVQUAL had already contained items representing communication.

Moreover, the questionnaire used for this study had been developed mainly based on 22 items from five dimensions of SERVQUAL model which was used for measuring the service quality for many business. However, some items of each dimension might not be proper to Thai community pharmacy service. Thus, to get rid of the problem of different culture and business toward the dimensions and items of service quality of SERVQUAL, this current study used the 28 items of community pharmacy service according to client and health care provider review. Therefore, to compare the result of this study with other previous health business study needed much consideration.

To complete the computation of the SERVQUAL scale, the researcher had to compute the Gap Score (SERVQUAL score = Perceptions Score – Expectations Score) for each of the statements for each customer. Then, compute the average Gap Score for each dimension by assessing the Gap Scores for each of the statements that constituted the dimension and dividing the sum by the number of statements making up the dimension (For instance, 2, 3, 4 or 5 statements). Then, transferred the average dimension SERVQUAL scores (for all dimensions) from the SERVQUAL instrument; by summing up the scores and dividing it by the numbers of dimensions, to obtain the unweighted score of service quality. Then, multiplied the unweighted score with the importance weights to complete the SERVQUAL computation procedure.

However, since this current study relied on the concept of “Perception-Minus-Expectations Measurement,” the researcher focused only on the GAP score, and paid no attention to the complete computation procedure of SERVQUAL. Though, this current study asked for the importance ranking form client, the objective was to use this data for identifying the difference comparison between client and pharmacist perspective only.

Moreover, some researchers presented GAP scores, while some presented the weighted scores of SERVQUAL procedure, and as discussed earlier, there might be the difference of patterns and numbers of items and dimensions used in each study. Therefore, the comparison between the GAP score of this current study and the scores from previous researches needed much consideration.

However, there were some data that Zeithaml, Parasuraman, and Berry used as a benchmark for their model. The result of 1936 clients from five large American service industries; two banks, two insurance companies, and a long-distance telephone company, identified -0.99 for the GAP score (Zeithaml, Parasuraman, and Berry, 1990). Therefore, the -0.99 GAP score could be used as a benchmark for studies that used SERVQUAL instrument.

SERVQUAL instrument had been used in many different businesses in many studies; Scottish libraries, Scottish home health service, English outpatient clinics and etc. Considering these businesses, the services provided from English outpatient clinics were closed to the service of the community pharmacist the most. The use of SERVQUAL in three outpatient clinics in Leicestershire, U.K. indicated the -0.50 GAP score. Comparing -0.50 GAP score of English outpatient clinics with the GAP score benchmark from five large American service industries, the result revealed that though client dissatisfied with the service received, -0.99 GAP score of the benchmark meant worse than that. It meant that service quality of three outpatient clinics in Leicestershire, U.K. was higher than the standard average. However, English outpatient clinics quality still needed to be improved to gain client satisfaction.

Data Collection Problem

Since the current project relied on the complex theory of “Perception-Minus-Expectations Measurement,” and focused on details of expectation level and dimension importance ranking as well. Therefore, client respondents had to pay much attention and time to measure the evaluation of service performance, the adequate service level of expectations and the desired service level of expectations, and to assign scores out of 100 points for six dimensions according to how important each dimension was to client. Therefore, there were some clients who refused to further administer the questionnaire after taking a while with the complex and long length questionnaire. Moreover, the data collector had to gain the accurate and complete information from client before asking the community pharmacist to self-administer questionnaire. After taking much time and attention to client respondent and considering the data received, if the data showed that client could not understand the concept explained, the data collector had to reject the data, and wait until he/she gained the accurate and complete client data information. Then, the data collector asked the community pharmacist to respond the questionnaire. Therefore, the data collector could get information from every community pharmacy that accepted to join the study.

However, the complexes of quality and expectation concepts were the critical problems as well. To make sure that client could administer the questionnaire, the data collector had to explain these concept details, and asked for confirming that client clearly understood these concepts before let client respond the questionnaire. However, there were some clients who could not self-administer questionnaire, and there were some community pharmacies that refused to join the project. Therefore, to gain the information as much as possible, a person-to-person interview method was used for some clients to gain the accurate and complete information. Therefore, there might be the problem of internal validity because data collecting were gained from

two different methods; self-administered questionnaire and a person-to-person interview. Therefore, the bias of the data collector might affect client rating score.

Conclusion

To conclude, the study showed that there were significant differences between client and pharmacist perceptions toward some dimensions and some items of community pharmacy service. Moreover, there were significant differences between client and pharmacist perceptions toward the importance ranking from client and pharmacist perspectives on each dimension of community pharmacy service quality as well.

The study demonstrated that when focusing on desired service expectation of each dimension and each item, the community pharmacist quality appeared never exceed this level of expectation. However, nearly meeting client desire expectation is not enough; the community pharmacist quality must exceed this level to satisfy and retain client. However, the community pharmacist quality was perceived as being higher than the adequate service expectation level.

The ability to exceed expectation depends on the type of client expectation: surpassing the desired service level may be an infeasible, but exceeding the adequate service level is possible yet unimpressive. In essence, the goal of exceeding desire service may be too high and that of performing higher than adequate service may be too low (Zeithaml and Bitner, 1996). Setting a goal of exceeding desire service may frustrate the community pharmacist and set the community pharmacy up for over promising. But exceeding adequate expectation is unlikely to gain client satisfaction.

From the study, the researcher suggested the two possible ways to gain client satisfaction by focusing on increasing the quality score of community pharmacy service or decreasing client desired service expectation. The suggested details of each method were as followed.

1. Increase service quality
 - CRM: Membership
 - Training
 - Informing
 - Accreditation
2. Decrease desire service expectation

1. Increase service quality

CRM: Membership

Community pharmacy owners, pharmacists and etc. should make a strategy to operate the membership program in their community pharmacies. Having

membership relationships is one kind of customer relationship management (CRM); a strategy for service provider to operate to gain client satisfaction and loyalty (Kotler and Armstrong, 2004, Lovelock, 2001, and Zeithaml and Bitner, 1996). The membership program would enhance the opportunity for community pharmacists to increase relationships with their clients. The manual or computer profile should be operated to record member information and medication history. Increase the relationship through communication while client encountering with pharmacist would also enhance relationships between them. Since confidence benefits of CRM includes feelings by client that in an established relationship there are less risk of something go wrong, confidence in correct performance, ability to trust the provider, lowered anxiety when purchasing, knowing what to expect, and receipt of the firm's highest level of service (Lovelock, C. 2001), therefore, operating the membership program allows the community pharmacist the opportunity to provide service to his/her client to gain better perceptions of client toward the six dimensions of community pharmacy; reliability, assurance, responsiveness, communication, tangible, and empathy.

Training

The policy maker, pharmacy council, community pharmacy owner, and etc. should provide the ongoing training in the knowledge, technical skills, service skills and interactive skills to the community pharmacist.

The community pharmacist should be urged to attend the knowledge class, the new medicine development seminar, and etc. These knowledge will allow the community pharmacist to improve his/her knowledge and confidence which finally lead to gain the reliability and assurance from his/her client.

The verbal and non-verbal communication skill training are encouraged to attend as well. The verbal behavior includes accept feelings, reflect feelings, nonevaluative responses ("Uh-huh, I see," etc.), and allow client to end silent periods. The nonverbal behavior includes eye contact (look at client without staring), posture (indicate interest, relaxation), and no distracting mannerisms. The nondirective interviewing is also one kind of technique to attend; actively listen, be receptive to the feelings client expresses, and reflect back the feelings expressed. These skills will allow the community pharmacist to communicate empathy, assurance, and responsiveness to his/her client, and improve the quality of communication as well.

Therefore, providing the ongoing training in the knowledge, technical skills, service skills and interactive skills to the community pharmacist allows his/her the opportunity to provide service to his/her client to gain better perceptions of client toward the five dimensions of community pharmacy; reliability, assurance, responsiveness, communication, and empathy.

Informing

Client is not always aware of everything done behind the scenes to serve him/her. Most services have invisible support processes. The community pharmacist may neglect to inform client. Often, the community pharmacist might not actively communicate to client, because he/she assumes client knows about them.

Even though many competitors provide the same services, the community pharmacist that communicates to his/her client will be the one chosen. Making client aware of standards or efforts to improve service that are not readily apparent can improve service quality perceptions.

Therefore, the community pharmacy owners, community pharmacists and etc. should operate informing strategy to notify client about the providing service.

Accreditation Program

The community pharmacist should provide the superiority of his/her service; distinct process of providing professional service. He/she should serve client with good knowledge, skill, experience, and efficacy, so that client has the good perception toward coming to his/her community pharmacy; not just only coming to the community pharmacy to buy medicine, but to gain healthy and safety as well. The process of the “Standard of Drugstores Community Pharmacy Development and Accreditation” by “Pharmacy Council” should be practiced to gain the good perception from client. Professional approach; pharmacy diagnosis, client medication counseling, rational drug use counseling, health related advice, chronic disease advice and drug refill, drug-therapy problem prevention, client’s drug profile documentation, client confidentiality service, should be practiced according to the standard and guidelines.

Nowadays, the community pharmacy that has passed the “Accreditation” will be recognized from people about the quality of service. Therefore, the policy makers, pharmacy council, community pharmacy owners and etc. should stimulate the community pharmacist to improve the quality of community pharmacy service and enrolled to the Accreditation Program to gain the better perceptions toward the dimensions of tangibles, assurance and reliability from client.

2. Decrease desire service expectation

The researcher suggested that community pharmacists should educate client about what to expect, and make client understand the trade-off of the providing service. For instance, wait long to receive the high quality of service, if client understands this trade-off, he/she is likely to be more satisfied because his/her service desire expectation becomes more realistic.

Limitation of the Study

A purposive sample was utilized in this current study. The sampling frames were a name list of the membership of the Thai Community Pharmacy Association in Bangkok, Samuthprakan, Pratumthani, and Nonthaburi province, Thailand, and a name list of the drugstores in department stores and convenient stores in Bangkok, Thailand. Therefore, the generalization of the result is limited. The data only represent the picture of community pharmacies that were the members of the Thai Community Pharmacy Association in Bangkok, Samuthprakan, Pratumthani, and Nonthaburi province, and in department stores and convenient stores in Bangkok, Thailand.

Moreover, the data was collected from only the community pharmacies that accepted to join the project. Therefore, there might be a difference of data from community pharmacies that refused to join the project. Therefore, the result of this current study could represent the data from only parts of community pharmacies.

Therefore, the ability to draw similar conclusions to other community pharmacies in Thailand is restricted.

Future Study

This study administered the full instrument adapted from SERVQUAL instrument for community pharmacy. It is potentially possible that the inclusion of these items represented the community pharmacy service. Therefore, additional research is needed to collect data from community pharmacies all over Thailand to identify the whole picture of Thai community pharmacy service quality.

Moreover, further examination research is needed to collect data from community pharmacies all over Thailand to identify the whole picture of the difference between pharmacist and client perceptions of service quality.

The result showed that client dissatisfied with most items (25 from 28 items) and every dimension of community pharmacy service, whereas client rated quite high to high performance scores for most items and dimensions. Therefore, the next step needed to explore satisfaction measure to confirm the result of this current study.

Because of the complex and long-length questionnaire, client had to pay much time and attention. Therefore, the next study might need to use other data collection methods; for instance, in-depth interview, to gain the accurate and complete data information.



APPENDICES

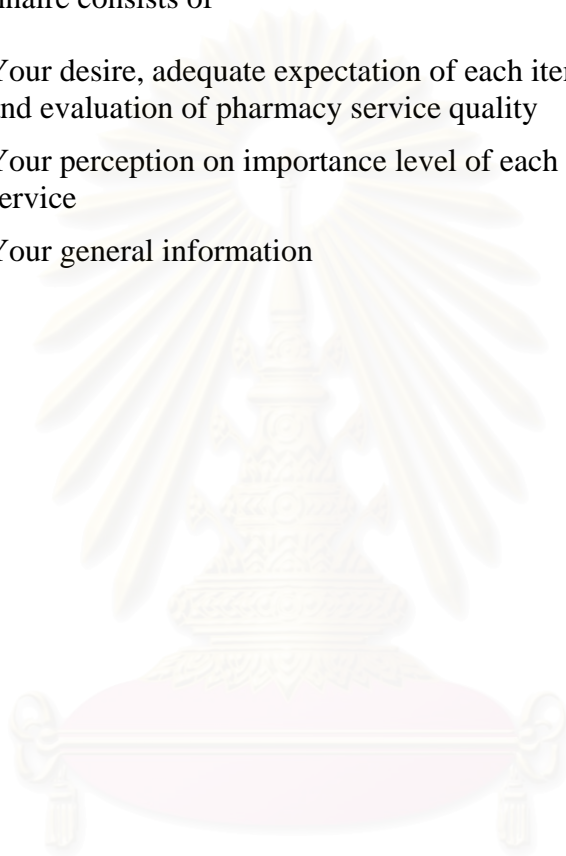
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APPENDIX A: Questionnaire for Client
Topic: Client and Pharmacist Perceptions on Community Pharmacy Service Quality

As a service receiver of the responded drug store of our project, please take a few moments to complete this questionnaire and submit it to the researcher. Your response is important to our project and will remain confidential.

Questionnaire consists of

- Part 1 Your desire, adequate expectation of each items of pharmacy service and evaluation of pharmacy service quality
- Part 2 Your perception on importance level of each dimension of pharmacy service
- Part 3 Your general information



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Part 1 This part asks about your desire, adequate expectation of each items of pharmacy service and evaluation of pharmacy service quality.

This part asks about your desired expectation of each item of pharmacy service.

Notice please circle around the number that represents your perception.

Please rate your desired expectation level for these following items of pharmacy service.

1.	Pharmacist appears clean. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
2.	Pharmacist has the private zone for counseling when needed. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
3.	Pharmacist provides service cleanly. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
4.	Pharmacist provides service with complete information of medication names and indications. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
5.	Pharmacist records or can remember your past medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
6.	Pharmacist has the knowledge to provide medicine, answer questions and give advices. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
7.	Pharmacist makes you feel safe to take medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
8.	Pharmacist does not disclose your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
9.	Pharmacist does not provide you unnecessary medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
10.	Pharmacist provides service worth with your money. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
11.	Pharmacist provides service accurately. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
12.	Pharmacist checks type, number and expiry date of medicine before providing medication to you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
13.	Pharmacist is willing to service you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

14.	Pharmacist provides service with sufficient time. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
15.	Pharmacist provides service with polite manner. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
16.	Pharmacist friendly provides service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
17.	Pharmacist provides service with honest. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
18.	Pharmacist does not let you wait long for receiving service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
19.	Pharmacist thoroughly asks you before providing medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
20.	Pharmacist provides service, information and advice relevant to your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
21.	Pharmacist pays attention to solve your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
22.	Pharmacist pays attention to your gesture. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
23.	Pharmacist understands your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
24.	Pharmacist understands your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
25.	Pharmacist understands your feeling. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
26.	Pharmacist provides information with clear and understanding language. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
27.	Pharmacist answers your questions with sufficient details. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
28.	Pharmacist asks you back to see how well you understand the information. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

This part asks about your adequate expectation of each item of pharmacy service.

Notice please circle around the number that represents your perception. Please rate your adequate expectation level for these following items of pharmacy service.

1.	Pharmacist appears clean. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
2.	Pharmacist has the private zone for counseling when needed. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
3.	Pharmacist provides service cleanly. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
4.	Pharmacist provides service with complete information of medication names and indications. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
5.	Pharmacist records or can remember your past medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
6.	Pharmacist has the knowledge to provide medicine, answer questions and give advices. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
7.	Pharmacist makes you feel safe to take medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
8.	Pharmacist does not disclose your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
9.	Pharmacist does not provide you unnecessary medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
10.	Pharmacist provides service worth with your money. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
11.	Pharmacist provides service accurately. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
12.	Pharmacist checks type, number and expiry date of medicine before providing medication to you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
13.	Pharmacist is willing to service you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

14.	Pharmacist provides service with sufficient time. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
15.	Pharmacist provides service with polite manner. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
16.	Pharmacist friendly provides service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
17.	Pharmacist provides service with honest. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
18.	Pharmacist does not let you wait long for receiving service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
19.	Pharmacist thoroughly asks you before providing medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
20.	Pharmacist provides service, information and advice relevant to your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
21.	Pharmacist pays attention to solve your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
22.	Pharmacist pays attention to your gesture. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
23.	Pharmacist understands your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
24.	Pharmacist understands your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
25.	Pharmacist understands your feeling. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
26.	Pharmacist provides information with clear and understanding language. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
27.	Pharmacist answers your questions with sufficient details. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
28.	Pharmacist asks you back to see how well you understand the information. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

This part asks about the providing service quality of this drug store.

Notice please circle around the number that represents your perception.

Please evaluate the providing service quality of this drug store for these following items of pharmacy service.

1.	Pharmacist appears clean. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
2.	Pharmacist has the private zone for counseling when needed. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
3.	Pharmacist provides service cleanly. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
4.	Pharmacist provides service with complete information of medication names and indications. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
5.	Pharmacist records or can remember your past medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
6.	Pharmacist has the knowledge to provide medicine, answer questions and give advices. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
7.	Pharmacist makes you feel safe to take medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
8.	Pharmacist does not disclose your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
9.	Pharmacist does not provide you unnecessary medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
10.	Pharmacist provides service worth with your money. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
11.	Pharmacist provides service accurately. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
12.	Pharmacist checks type, number and expiry date of medicine before providing medication to you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
13.	Pharmacist is willing to service you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

14.	Pharmacist provides service with sufficient time. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
15.	Pharmacist provides service with polite manner. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
16.	Pharmacist friendly provides service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
17.	Pharmacist provides service with honest. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
18.	Pharmacist does not let you wait long for receiving service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
19.	Pharmacist thoroughly asks you before providing medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
20.	Pharmacist provides service, information and advice relevant to your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
21.	Pharmacist pays attention to solve your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
22.	Pharmacist pays attention to your gesture. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
23.	Pharmacist understands your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
24.	Pharmacist understands your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
25.	Pharmacist understands your feeling. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
26.	Pharmacist provides information with clear and understanding language. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
27.	Pharmacist answers your questions with sufficient details. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
28.	Pharmacist asks you back to see how well you understand the information. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

Part 2 This part asks about your perception on importance level of each dimension of pharmacy service.

Notice please rates the importance of each dimension of pharmacy service by allocating the high scores for the important dimension, and the low scores for the unimportant dimension. Total scores for each dimension will be 100 scores.

The appearance of community pharmacist.	_____ points
The community pharmacist's ability to perform the service dependably and accurately.	_____ points
The community pharmacist's willingness to help client and provide a prompt service.	_____ points
The knowledge and courtesy of the community pharmacist and his/her ability to convey trust and confidence.	_____ points
The caring, individualized attention the community pharmacist provides his/her client.	_____ points
The communication of pharmacist.	_____ points

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Part 3 This part asks about your general information

Notice please indicate ✓ in the and fill in the blank that represents your information

1. Gender

- male female

2. Age _____ years old

3. Occupation

- | | |
|---|---|
| <input type="checkbox"/> unemployed | <input type="checkbox"/> retired |
| <input type="checkbox"/> farmer | <input type="checkbox"/> student |
| <input type="checkbox"/> housewife | <input type="checkbox"/> business owner |
| <input type="checkbox"/> governmental or state enterprise officer | <input type="checkbox"/> private employee |
| <input type="checkbox"/> temporary employee | <input type="checkbox"/> permanent employee |
| <input type="checkbox"/> Other (describe) | |

4. Total income/month

- | | |
|--|---|
| <input type="checkbox"/> less than 6000 Baht | <input type="checkbox"/> 6001-12000 Baht |
| <input type="checkbox"/> 12001-18000 Baht | <input type="checkbox"/> 18001-24000 Baht |
| <input type="checkbox"/> 24001-30000 Baht | <input type="checkbox"/> 30001-36000 Baht |
| <input type="checkbox"/> 36001-42000 Baht | <input type="checkbox"/> more than 42000 Baht |

5. Highest Education level

- | | |
|---|---|
| <input type="checkbox"/> less than primary school | <input type="checkbox"/> secondary school |
| <input type="checkbox"/> primary school | <input type="checkbox"/> undergraduate |
| <input type="checkbox"/> high school | <input type="checkbox"/> MS/MBA |
| <input type="checkbox"/> BS | |
| <input type="checkbox"/> PhD | |

6. How often have you visited drugstore? _____ times per 1 month

7. How often have you visited this drugstore? _____ times per 1 month

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APPENDIX B: Questionnaire for Pharmacist

Topic: Client and Pharmacist Perceptions on Community Pharmacy Service Quality

As a service provider of the responded drug store of our project, your response is important to our project and will remain confidential. Questionnaire consists of three parts, please take a few moments to complete this questionnaire and submit it to the researcher.

Part 1 This part asks about your providing service quality.

Notice please circle around the number that represents your providing service quality for these following items.

1.	You appear clean. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
2.	You have the private zone for counseling when needed. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
3.	You provide service cleanly. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
4.	You provide service with complete information of medication names and indications. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
5.	You record or can remember your client past medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
6.	You have the knowledge to provide medicine, answer questions and give advices. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
7.	You make your client feel safe to take medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
8.	You do not disclose your client health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
9.	You do not provide your client unnecessary medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
10.	You provide service worth with your client money. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
11.	You provide service accurately. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

12.	You check type, number and expiry date of medicine before providing medication to your client. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
13.	You are willing to service your client. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
14.	You provide service with sufficient time. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
15.	You provide service with polite manner. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
16.	You friendly provide service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
17.	You provide service with honest. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
18.	You do not let your client wait long for receiving service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
19.	You thoroughly ask your client before providing medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
20.	You provide service, information and advice relevant to your client need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
21.	You pay attention to solve your client health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
22.	You pay attention to your client gesture. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
23.	You understand your client health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
24.	You understand your client need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
25.	You understand your client feeling. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
26.	You provide information with clear and understanding language. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

27.	You answer your client questions with sufficient details. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
28.	You ask your client back to see how well your client understands the information. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

Part 2 This part asks about your perception on importance level of each dimension of pharmacy service.

Notice please rates the importance of each dimension of pharmacy service by allocating the high scores for the important dimension, and the low scores for the unimportant dimension. Total scores for each dimension will be 100 scores.

The appearance of community pharmacist.	_____ points
The community pharmacist's ability to perform the service dependably and accurately.	_____ points
The community pharmacist's willingness to help client and provide a prompt service.	_____ points
The knowledge and courtesy of the community pharmacist and his/her ability to convey trust and confidence.	_____ points
The caring, individualized attention the community pharmacist provides his/her client.	_____ points
The communication of pharmacist.	_____ points

Part 3 This part asks about your general information

Notice please indicate \checkmark in and fill in the blank that represents your information

1. Gender

male female

2. Age _____ years old

3. Highest Education Level

BS
MS/MBA
Ph.D

4. Experience as community pharmacist (included this drug store and others) _____ years

5. Experience as community pharmacist (only this drug store) _____ years

6. Work Status

registered, full time pharmacist
registered, part time pharmacist
unregistered, full time pharmacist
unregistered, part time pharmacist
Other (describe) _____

7. Ownership of this drug store

your own
your family
you are one of the partner
you are employee

8. Type of this drug store

independent outside department store/office building
Chain drugstore
University drugstore
independent inside department store/office building
Franchise drugstore
Other (describe)

9. Number of clients/day

1-50 clients
51-100 clients
101-150 clients
more than 150 clients

10. Revenue per day

< 1000
1001-5000
5001-10000
10001-15000
15001-20000
> 20001

11. Has this drugstore already applied for community pharmacy accreditation project by Thai Pharmacy Council?

applied, passed
applied, not passed
not applied

APPENDIX C: Code Book for Client Questionnaire

Topic: Client and Pharmacist Perceptions on Community Pharmacy Service Quality

As a service receiver of the responded drug store of our project, please take a few moments to complete this questionnaire and submit it to the researcher. Your response is important to our project and will remain confidential.

Questionnaire consists of

- Part 1 Your desire, adequate expectation of each items of pharmacy service and evaluation of pharmacy service quality
- Part 2 Your perception on importance level of each dimension of pharmacy service
- Part 3 Your general information



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Part 1 This part asks about your desire, adequate expectation of each items of pharmacy service and evaluation of pharmacy service quality.

This part asks about your desired expectation of each item of service.

Notice please circle around the number that represents your perception.

Please rate your desired expectation level for these following items of pharmacy service.

1.	Pharmacist appears clean. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
2.	Pharmacist has the private zone for counseling when needed. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
3.	Pharmacist provides service cleanly. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
4.	Pharmacist provides service with complete information of medication names and indications. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
5.	Pharmacist records or can remember your past medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
6.	Pharmacist has the knowledge to provide medicine, answer questions and give advices. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
7.	Pharmacist makes you feel safe to take medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
8.	Pharmacist does not disclose your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
9.	Pharmacist does not provide you unnecessary medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
10.	Pharmacist provides service worth with your money. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
11.	Pharmacist provides service accurately. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
12.	Pharmacist checks type, number and expiry date of medicine before providing medication to you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
13.	Pharmacist is willing to service you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

14.	Pharmacist provides service with sufficient time. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
15.	Pharmacist provides service with polite manner. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
16.	Pharmacist friendly provides service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
17.	Pharmacist provides service with honest. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
18.	Pharmacist does not let you wait long for receiving service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
19.	Pharmacist thoroughly asks you before providing medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
20.	Pharmacist provides service, information and advice relevant to your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
21.	Pharmacist pays attention to solve your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
22.	Pharmacist pays attention to your gesture. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
23.	Pharmacist understands your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
24.	Pharmacist understands your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
25.	Pharmacist understands your feeling. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
26.	Pharmacist provides information with clear and understanding language. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
27.	Pharmacist answers your questions with sufficient details. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
28.	Pharmacist asks you back to see how well you understand the information. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
pdcleaa1	dPharmacist appears clean.	Number (0-10)
pdpriva2	dPharmacist has the private zone for counseling when needed.	999 = missing data
pdserva3	dPharmacist provides service cleanly.	
pdllabea4	dPharmacist provides service with complete information of medication names and indications.	
pddocua5	dPharmacist records or can remember his/her client past medication.	
pdknowa6	dPharmacist has the knowledge to provide medicine, answer questions and give advices.	
pdsafea7	dPharmacist makes his/her client feel safe to take medication.	
pddisca8	dPharmacist does not disclose his/her client health problem.	
pdunnea9	dPharmacist does not provide his/her client unnecessary medicine.	
pdwora10	dPharmacist provides service worth with his/her client money.	
pdcora11	dPharmacist provides service accurately.	
pddoua12	dPharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	
pdwila13	dPharmacist is willing to service his/her client.	
pdtima14	dPharmacist provides service with sufficient time.	
pdpola15	dPharmacist provides service with polite manner.	
pdfrea16	dPharmacist friendly provides service.	
pdsina17	dPharmacist provides service with honest.	
pdwaia18	dPharmacist does not let his/her client wait long for receiving service.	
pddeta19	dPharmacist thoroughly asks his/her client before providing medicine.	
pdinfa20	dPharmacist provides service, information and advice relevant to his/her client need.	
pdatpa21	dPharmacist pays attention to solve his/her client health problem.	
pdatga22	dPharmacist pays attention to his/her client gesture.	
pdunpa23	dPharmacist understands his/her client health problem.	
pdunna24	dPharmacist understands his/her client need.	
pdunfa25	dPharmacist understands his/her client feeling.	
pdcoma26	dPharmacist provides information with clear and understanding language.	

Variable name:	Variable label:	Values and value labels:
pdansa27	dPharmacist answers his/her client questions with sufficient details.	
pdbaca28	dPharmacist asks his/her client back to see how well his/her client understands the information.	

This part asks about your adequate expectation of each item of pharmacy service.

Notice please circle around the number that represents your perception.

Please rate your adequate expectation level for these following items of pharmacy service.

1.	Pharmacist appears clean. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
2.	Pharmacist has the private zone for counseling when needed. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
3.	Pharmacist provides service cleanly. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
4.	Pharmacist provides service with complete information of medication names and indications. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
5.	Pharmacist records or can remember your past medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
6.	Pharmacist has the knowledge to provide medicine, answer questions and give advices. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
7.	Pharmacist makes you feel safe to take medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
8.	Pharmacist does not disclose your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
9.	Pharmacist does not provide you unnecessary medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

10.	Pharmacist provides service worth with your money. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
11.	Pharmacist provides service accurately. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
12.	Pharmacist checks type, number and expiry date of medicine before providing medication to you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
13.	Pharmacist is willing to service you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
14.	Pharmacist provides service with sufficient time. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
15.	Pharmacist provides service with polite manner. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
16.	Pharmacist friendly provides service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
17.	Pharmacist provides service with honest. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
18.	Pharmacist does not let you wait long for receiving service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
19.	Pharmacist thoroughly asks you before providing medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
20.	Pharmacist provides service, health information and advice relevant to your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
21.	Pharmacist pays attention to solve your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
22.	Pharmacist pays attention to your gesture. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
23.	Pharmacist understands your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
24.	Pharmacist understands your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

25.	Pharmacist understands your feeling. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
26.	Pharmacist provides information with clear and understanding language. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
27.	Pharmacist answers your questions with sufficient details. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
28.	Pharmacist asks you back to see how well you understand the information. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
pmcleaa1	mPharmacist appears clean.	Number (0-10)
pmpriva2	mPharmacist has the private zone for counseling when needed.	999 = missing data
pmserva3	mPharmacist provides service cleanly.	
pmlabea4	mPharmacist provides service with complete information of medication names and indications.	
pmdocua5	mPharmacist records or can remember his/her client past medication.	
pmknowa6	mPharmacist has the knowledge to provide medicine, answer questions and give advices.	
pmsafea7	mPharmacist makes his/her client feel safe to take medication.	
pmdisca8	mPharmacist does not disclose his/her client health problem.	
pmunnea9	mPharmacist does not provide his/her client unnecessary medicine.	
pmwora10	mPharmacist provides service worth with his/her client money.	
pmcora11	mPharmacist provides service accurately.	
pmdoua12	mPharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	
pmwila13	mPharmacist is willing to service his/her client.	
pmtima14	mPharmacist provides service with sufficient time.	
pmpola15	mPharmacist provides service with polite manner.	
pmfrea16	mPharmacist friendly provides service.	

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
pmsina17	mPharmacist provides service with honest.	
pmwaia18	mPharmacist does not let his/her client wait long for receiving service.	
pmdeta19	mPharmacist thoroughly asks his/her client before providing medicine.	
pminfra20	mPharmacist provides service, information and advice relevant to his/her client need.	
pmatpa21	mPharmacist pays attention to solve his/her client health problem.	
pmatga22	mPharmacist pays attention to his/her client gesture.	
pmunpa23	mPharmacist understands his/her client health problem.	
pmunna24	mPharmacist understands his/her client need.	
pmunfa25	mPharmacist understands his/her client feeling.	
pmcoma26	mPharmacist provides information with clear and understanding language.	
pmansa27	mPharmacist answers his/her client questions with sufficient details.	
pmbaca28	mPharmacist asks his/her client back to see how well his/her client understands the information.	

This part asks about the providing service quality of this drug store.
Notice please circle around the number that represents your perception.
Please evaluate the providing service quality of this drug store for these following items of pharmacy service.

1.	Pharmacist appears clean. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
2.	Pharmacist has the private zone for counseling when needed. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
3.	Pharmacist provides service cleanly. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
4.	Pharmacist provides service with complete information of medication names and indications. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
5.	Pharmacist records or can remember your past medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

6.	Pharmacist has the knowledge to provide medicine, answer questions and give advices. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
7.	Pharmacist makes you feel safe to take medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
8.	Pharmacist does not disclose your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
9.	Pharmacist does not provide you unnecessary medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
10.	Pharmacist provides service worth with your money. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
11.	Pharmacist provides service accurately. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
12.	Pharmacist checks type, number and expiry date of medicine before providing medication to you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
13.	Pharmacist is willing to service you. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
14.	Pharmacist provides service with sufficient time. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
15.	Pharmacist provides service with polite manner. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
16.	Pharmacist friendly provides service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
17.	Pharmacist provides service with honest. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
18.	Pharmacist does not let you wait long for receiving service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
19.	Pharmacist thoroughly asks you before providing medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
20.	Pharmacist provides service, health information and advice relevant to your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

21.	Pharmacist pays attention to solve your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
22.	Pharmacist pays attention to your gesture. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
23.	Pharmacist understands your health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
24.	Pharmacist understands your need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
25.	Pharmacist understands your feeling. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
26.	Pharmacist provides information with clear and understanding language. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
27.	Pharmacist answers your questions with sufficient details. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
28.	Pharmacist asks you back to see how well you understand the information. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
pqcleaa1	pPharmacist appears clean.	Number (0-10)
pqpriva2	pPharmacist has the private zone for counseling when needed.	999 = missing data
pqserva3	pPharmacist provides service cleanly.	
pqlabea4	pPharmacist provides service with complete information of medication names and indications.	
pqdocua5	pPharmacist records or can remember his/her client past medication.	
pqknowa6	pPharmacist has the knowledge to provide medicine, answer questions and give advices.	
pqsafea7	pPharmacist makes his/her client feel safe to take medication.	
pqdisca8	pPharmacist does not disclose his/her client health problem.	

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
pqunnea9	pPharmacist does not provide his/her client unnecessary medicine.	
pqwora10	pPharmacist provides service worth with his/her client money.	
pqcora11	pPharmacist provides service accurately.	
pqdoua12	pPharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	
pqwila13	pPharmacist is willing to service his/her client.	
pqtima14	pPharmacist provides service with sufficient time.	
pqpola15	pPharmacist provides service with polite manner.	
pqfrea16	pPharmacist friendly provides service.	
pqsina17	pPharmacist provides service with honest.	
pqwaia18	pPharmacist does not let his/her client wait long for receiving service.	
pqdeta19	pPharmacist thoroughly asks his/her client before providing medicine.	
pqinfa20	pPharmacist provides service, information and advice relevant to his/her client need.	
pqatpa21	pPharmacist pays attention to solve his/her client health problem.	
pqatga22	pPharmacist pays attention to his/her client gesture.	
pqunpa23	pPharmacist understands his/her client health problem.	
pqunna24	pPharmacist understands his/her client need.	
pqunfa25	pPharmacist understands his/her client feeling.	
pqcoma26	pPharmacist provides information with clear and understanding language.	
pqansa27	pPharmacist answers his/her client questions with sufficient details.	
pqbaca28	pPharmacist asks his/her client back to see how well his/her client understands the information.	

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Part 2 This part asks about your perception on importance level of each dimension of pharmacy service.

Notice please rates the importance of each dimension of pharmacy service by allocating the high scores for the important dimension, and the low scores for the unimportant dimension. Total scores for each dimension will be 100 scores.

The appearance of community pharmacist.	_____ points
The community pharmacist's ability to perform the service dependably and accurately.	_____ points
The community pharmacist's willingness to help client and provide a prompt service.	_____ points
The knowledge and courtesy of the community pharmacist and his/her ability to convey trust and confidence.	_____ points
The caring, individualized attention the community pharmacist provides his/her client.	_____ points
The communication of pharmacist.	_____ points

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
pdressb1	pThe appearance of community pharmacist.	Number (0-100)
pcorreb2	pThe community pharmacist's ability to perform the service dependably and accurately.	999 = missing data
pwillib3	pThe community pharmacist's willingness to help client and provide a prompt service.	
pconfib4	pThe knowledge and courtesy of the community pharmacist and his/her ability to convey trust and confidence.	
pattenb5	pThe caring, individualized attention the community pharmacist provides his/her client.	
pcommub6	pThe communication of pharmacist.	

Part 3 This part asks about your general information

Notice please indicate ✓ in the and fill in the blank that represents your information

1. Gender

- male female

2. Age _____ years old

3. Occupation

- unemployed retired
 farmer student
 housewife business owner
 governmental or state enterprise officer private employee
 temporary employee permanent employee
 Other (describe)

4. Total income/month

- less than 6000 Baht 6001-12000 Baht
 12001-18000 Baht 18001-24000 Baht
 24001-30000 Baht 30001-36000 Baht
 36001-42000 Baht more than 42000 Baht

5. Highest Education level

- less than primary school
 primary school secondary school
 high school undergraduate
 BS MS/MBA
 PhD

6. How often have you visited drugstore? _____ times per 1 month

7. How often have you visited this drugstore? _____ times per 1 month

จุฬาลงกรณ์มหาวิทยาลัย

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
psexfmc1	pGender	1 = Male 2 = Female 999 = missing data
pageyrc2	pAge	Number 999 = missing data
poccupc3	pOccupation	1 = unemployed 2 = retired 3 = farmer 4 = business owner 5 = student 6 = housewife 7 = governmental/state enterprise officer 8 = permanent employee 9 = temporary employee 10 = private employee 11 = Other (Describe) 999 = missing data
previnc4	pTotal Income/month	1 = < 6000 2 = 6001-12000 3 = 12001-18000 4 = 18001-24000 5 = 24001-30000 6 = 30001-36000 7 = 36001-42000 8 = > 42000 999 = missing data
peducac5	pHighest Education Level	1 = less than primary school 2 = primary school 3 = secondary school 4 = high school 5 = undergraduate 6 = BS 7 = MS/MBA/PhD 999 = missing data
ptofrec6	pFrequency All Drugstore (per month)	Number 999 = missing data
pthfrec7	pFrequency This Drugstore (per month)	Number 999 = missing data

APPENDIX D: Code Book for Pharmacist Questionnaire

Topic: Client and Pharmacist Perceptions on Community Pharmacy Service Quality

Part 1 This part asks about your providing service quality.

Notice please circle around the number that represents your providing service quality for these following items.

1.	You appear clean. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
2.	You have the private zone for counseling when needed. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
3.	You provide service cleanly. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
4.	You provide service with complete information of medication names and indications. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
5.	You record or can remember your client past medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
6.	You have the knowledge to provide medicine, answer questions and give advices. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
7.	You make your client feel safe to take medication. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
8.	You do not disclose your client health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
9.	You do not provide your client unnecessary medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
10.	You provide service worth with your client money. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
11.	You provide service accurately. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
12.	You check type, number and expiry date of medicine before providing medication to your client. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

13.	You are willing to service your client. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
14.	You provide service with sufficient time. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
15.	You provide service with polite manner. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
16.	You friendly provide service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
17.	You provide service with honest. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
18.	You do not let your client wait long for receiving service. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
19.	You thoroughly ask your client before providing medicine. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
20.	You provide service, information and advice relevant to your client need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
21.	You pay attention to solve your client health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
22.	You pay attention to your client gesture. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
23.	You understand your client health problem. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
24.	You understand your client need. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
25.	You understand your client feeling. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
26.	You provide information with clear and understanding language. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
27.	You answer your client questions with sufficient details. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality

28.	You ask your client back to see how well client understands information. 0 1 2 3 4 5 6 7 8 9 10 Lowest quality Highest quality
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<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
rqcleaa1	rPharmacist appears clean.	Number (0-10)
rqpriva2	rPharmacist has the private zone for counseling when needed.	999 = missing data
rqserva3	rPharmacist provides service cleanly.	
rqlabea4	rPharmacist provides service with complete information of medication names and indications.	
rqdocua5	rPharmacist records or can remember his/her client past medication.	
rqknowa6	rPharmacist has the knowledge to provide medicine, answer questions and give advices.	
rqsafea7	rPharmacist makes his/her client feel safe to take medication.	
rqdisca8	rPharmacist does not disclose his/her client health problem.	
rqunnea9	rPharmacist does not provide his/her client unnecessary medicine.	
rqwora10	rPharmacist provides service worth with his/her client money.	
rqcora11	rPharmacist provides service accurately.	
rqdoua12	rPharmacist checks type, number and expiry date of medicine before providing medication to his/her client.	
rqwila13	rPharmacist is willing to service his/her client.	
rqtima14	rPharmacist provides service with sufficient time.	
rqpola15	rPharmacist provides service with polite manner.	
rqfre16	rPharmacist friendly provides service.	
rq sina17	rPharmacist provides service with honest.	
rqwaia18	rPharmacist does not let his/her client wait long for receiving service.	
rqdeta19	rPharmacist thoroughly asks his/her client before providing medicine.	
rqinfa20	rPharmacist provides service, information and advice relevant to his/her client need.	
rqatpa21	rPharmacist pays attention to solve his/her client health problem.	
rqatga22	rPharmacist pays attention to his/her client gesture.	

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
rqunpa23	rPharmacist understands his/her client health problem.	
rqunna24	rPharmacist understands his/her client need.	
rqunfa25	rPharmacist understands his/her client feeling.	
rqcoma26	rPharmacist provides information with clear and understanding language.	
rqansa27	rPharmacist answers his/her client questions with sufficient details.	
rqbaca28	rPharmacist asks his/her client back to see how well client understands information.	

Part 2 This part asks about your perception on importance level of each dimension of pharmacy service.

Notice please rates the importance of each dimension of pharmacy service by allocating the high scores for the important dimension, and the low scores for the unimportant dimension. Total scores for each dimension will be 100 scores.

The appearance of community pharmacist.	_____ points
The community pharmacist's ability to perform the service dependably and accurately.	_____ points
The community pharmacist's willingness to help client and provide a prompt service.	_____ points
The knowledge and courtesy of the community pharmacist and his/her ability to convey trust and confidence.	_____ points
The caring, individualized attention the community pharmacist provides his/her client.	_____ points
The communication of pharmacist.	_____ points

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
rdressb1	rThe appearance of community pharmacist.	Number (0-100)
rcorreb2	rThe community pharmacist's ability to perform the service dependably and accurately.	999 = missing data
rwillib3	rThe community pharmacist's willingness to help client and provide a prompt service.	

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
rconfib4	rThe knowledge and courtesy of the community pharmacist and his/her ability to convey trust and confidence.	
rattenb5	rThe caring, individualized attention the community pharmacist provides his/her client.	
rcommub6	rThe communication of pharmacist.	

Part 3 This part asks about your general information

Notice please indicate \surd in \square and fill in the blank that represents your information

1. Gender

male female

2. Age _____ years old

3. Highest Education Level

BS
MS/MBA
Ph.D

4. Experience as community pharmacist (included this drug store and others)

_____ years

5. Experience as community pharmacist (only this drug store) _____ years

6. Work Status

registered, full time pharmacist
registered, part time pharmacist
unregistered, full time pharmacist
unregistered, part time pharmacist
Other (describe) _____

7. Ownership of this drug store

your own
your family
you are one of the partner
you are employee

8. Type of this drug store

independent outside department store/office building
Chain drugstore
University drugstore
independent inside department store/office building
Franchise drugstore
Other (describe)

9. Number of clients/day

1-50 clients
51-100 clients
101-150 clients
more than 150 clients

10. Revenue per day

- < 1000
- 1001-5000
- 5001-10000
- 10001-15000
- 15001-20000
- > 20001

11. Has this drugstore already applied for community pharmacy accreditation project by Thai Pharmacy Council?

- applied, passed
- applied, not passed
- not applied

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
rsexfmc1	rGender	1 = Male 2 = Female 999 = missing data
rageyrc2	rAge	Number 999 = missing data
reducac3	rHighest Education Level	1 = BS 2 = MS/MBA 3 = PhD 999 = missing data
rtoexpc4	rExperience as community pharmacist (included this drug store and others)	Number 999 = missing data
rthexpc5	rExperience as community pharmacist (included this drug store and others)	Number 999 = missing data
rpositc6	rWork Status	1 = registered, full time pharmacist 2 = registered, part time pharmacist 3 = unregistered, full time pharmacist 4 = unregistered, part time pharmacist 5 = Other (Describe) 999 = missing data
rentrec7	rOwnership of this drug store	1 = your own 2 = your family 3 = partner 4 = employee 999 = missing data

<u>Variable name:</u>	<u>Variable label:</u>	<u>Values and value labels:</u>
rtypedc8	rType of this drug store	1 = independent outside department store/office building 2 = chain drugstore 3 = university drugstore 4 = independent inside department store/office building 5 = franchise drugstore 6 = Other (Describe) 999 = missing data
rquanc9	rNumber of clients/day	1 = 1-50 clients 2 = 51-100 clients 3 = 101-150 clients 4 = > 150 clients 999 = missing data
rsalec10	rRevenue per day	1 = < 1000 2 = 1001-5000 3 = 5001-10000 4 = 10001-15000 5 = 15001-20000 6 = > 20001 999 = missing data
rstanc11	rHas this drug store already applied for community pharmacy accreditation project by Thai Pharmacy Council?	1 = applied, passed 2 = applied, not passed 3 = not applied 999 = missing data

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APPENDIX E: แบบสอบถามสำหรับผู้มาใช้บริการร้านยา
เรื่อง คุณภาพงานบริการเภสัชกรรมชุมชนในมุมมองของผู้รับบริการและเภสัชกร

ในฐานะที่คุณเป็นผู้มาใช้บริการในร้านยาที่ตอบรับเข้าร่วมโครงการวิจัย คณะผู้วิจัยจึงขอร่วมมือจากคุณในการตอบแบบสอบถาม โดยข้อมูลและความเห็นต่าง ๆ ในแบบสอบถามที่คุณตอบ ทางคณะผู้วิจัยจะเก็บรักษาไว้เป็นความลับสูงสุด และจะไม่มีผลกระทบต่อใด ๆ ต่อคุณ รวมทั้งยังไม่มีผลกระทบต่อร้านยาที่คุณมารับบริการ โดยนำเสนอข้อมูลจะเป็นไปในภาพรวม และไม่มีการระบุผู้ตอบแบบสอบถามเป็นรายบุคคลโดยเด็ดขาด แบบสอบถามนี้มี 3 ส่วน ขอความกรุณาจากคุณกรอกข้อมูลลงในแบบสอบถามนี้และส่งคืนคณะผู้วิจัย



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คุณภาพงานที่คุณต้องการจะได้รับบริการจากหัวข้อของงานบริการต่อไปนี้อยู่ที่ระดับ

น้อยที่สุด มากที่สุด

	0	1	2	3	4	5	6	7	8	9	10
18. คุณต้องการที่จะได้รับบริการจากเภสัชกรโดยไม่ต้องรอนาน											
19. คุณต้องการให้เภสัชกรมีการสอบถามอย่างละเอียดก่อนที่จะจ่ายยาให้แก่คุณ											
20. คุณต้องการให้เภสัชกรให้บริการ ข้อมูล และคำแนะนำต่าง ๆ ตรงตามความต้องการของคุณ											
21. คุณต้องการให้เภสัชกรให้ความสนใจและใส่ใจในการแก้ปัญหาสุขภาพของคุณ											
22. คุณต้องการให้เภสัชกรเอาใจใส่ต่อท่าทีการแสดงออกของคุณ											
23. คุณต้องการให้เภสัชกรเข้าใจถึง ปัญหาสุขภาพของคุณ											
24. คุณต้องการให้เภสัชกรเข้าใจถึง ความต้องการของคุณ											
25. คุณต้องการให้เภสัชกรเข้าใจถึง ความรู้สึกของคุณ											
26. คุณต้องการให้เภสัชกรพูดคุยกับคุณด้วยภาษาที่เข้าใจง่ายชัดเจน											
27. คุณต้องการให้เภสัชกรตอบคำถามได้ละเอียดครบถ้วน											
28. คุณต้องการให้เภสัชกรมีการซักถามกลับเพื่อตรวจสอบความเข้าใจของคุณ											

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จากหัวข้อของงานบริการต่อไปนี้ คุณภาพเป็นจริงที่คุณได้รับการจากเภสัชกรอยู่ที่ระดับ

ต่ำ สูง

	0	1	2	3	4	5	6	7	8	9	10
20. เภสัชกรให้บริการ ข้อมูล และคำแนะนำต่างๆตรงตามความต้องการของคุณ											
21. เภสัชกรให้ความสนใจและใส่ใจในการแก้ปัญหาสุขภาพของคุณ											
22. เภสัชกรเอาใจใส่ต่อท่าทีการแสดงออกของคุณ											
23. เภสัชกรเข้าใจถึง ปัญหาสุขภาพของคุณ											
24. เภสัชกรเข้าใจถึง ความต้องการของคุณ											
25. เภสัชกรเข้าใจถึง ความรู้สึกของคุณ											
26. เภสัชกรพูดคุยกับคุณด้วยภาษาที่เข้าใจง่าย ชัดเจน											
27. เภสัชกรตอบคำถามได้ละเอียดครบถ้วน											
28. เภสัชกรมีการซักถามกลับเพื่อตรวจสอบความเข้าใจของคุณ											

ส่วนที่ 2 ในส่วนนี้ขอถามเกี่ยวกับระดับความสำคัญของการให้บริการเหล่านี้ ที่คุณคิดว่ามีผลต่อคุณภาพงานบริการของร้านยา

คำชี้แจง โปรดให้คะแนนความสำคัญของหัวข้องานบริการของสถานบริการเภสัชกรรมชุมชน โดยให้คะแนนแต่ละหัวข้อตามที่คุณคิดว่ามีผลต่อคุณ

คะแนนมากสำหรับหัวข้อที่มีความสำคัญมาก คะแนนน้อยสำหรับหัวข้อที่มีความสำคัญน้อย คะแนนเต็มในแต่ละหัวข้อเท่ากับ 100

1. การแต่งกายของเภสัชกรและวัสดุ อุปกรณ์ที่ใช้ให้บริการ	_____ คะแนน
2. การให้บริการของเภสัชกรอย่างถูกต้อง เหมาะสม	_____ คะแนน
3. ความยินดีและเต็มใจของเภสัชกรที่จะให้บริการแก่คุณ	_____ คะแนน
4. ความรู้สึกวางใจและมั่นใจของผู้มารับบริการเมื่อได้รับการจากเภสัชกร	_____ คะแนน
5. ความเอาใจใส่ของเภสัชกรที่จะให้บริการแก่คุณ	_____ คะแนน
6. ความสามารถในการติดต่อสื่อสารของเภสัชกร	_____ คะแนน

ส่วนที่ 3 ในส่วนนี้ขอถามเกี่ยวกับข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

คำชี้แจง โปรดเขียนเครื่องหมาย X ลงในช่อง และเติมค่าในช่องว่างที่ตรงกับข้อมูลของคุณมากที่สุด

1. เพศ

- ชาย หญิง

2. อายุ _____ ปี

3. อาชีพ

- ไม่ได้ประกอบอาชีพ / ไม่มีอาชีพ / ไม่ได้ทำงาน เกษียณอายุ เกษตรกร
 เจ้าของธุรกิจ / ผู้ประกอบการ นักเรียน / นิสิต / นักศึกษา
 ข้าราชการ / พนักงานรัฐวิสาหกิจ ลูกจ้าง/รับจ้าง อาชีพอิสระ
 แม่บ้าน / พ่อบ้าน อื่น ๆ (โปรดระบุ).....

4. รายได้ของคุณ

- ไม่มีรายได้ / ต่ำกว่า 6000 บาท 6001-12000 บาท 12001-18000 บาท
 18001-24000 บาท 24001-30000 บาท 30001-36000 บาท
 36001-42000 บาท ตั้งแต่ 42001 ขึ้นไป

5. ระดับการศึกษาสูงสุด

- ไม่ได้เรียนหนังสือ / ไม่จบการศึกษาภาคบังคับประถมศึกษา (ต่ำกว่า ป.6) ประถมศึกษา
 มัธยมศึกษาตอนต้น มัธยมศึกษาตอนปลาย / ปวช. หรือเทียบเท่า
 อนุปริญญา / ปวส. หรือเทียบเท่า ปริญญาตรี สูงกว่าปริญญาตรี

6. ความถี่ในการใช้บริการที่ร้านยา (ต่อ 1 เดือน) _____ ครั้ง

7. ความถี่ในการใช้บริการที่ร้านยานี้ (ต่อ 1 เดือน) _____ ครั้ง

8. คุณเป็นลูกค้าประจำที่ร้านยานี้หรือไม่

- ใช่ ไม่ใช่

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APPENDIX F: แบบสอบถามสำหรับเภสัชกรผู้ให้บริการ
เรื่อง คุณภาพงานบริการเภสัชกรรมชุมชนในมุมมองของผู้รับบริการและเภสัชกร

ในฐานะที่คุณเป็นเภสัชกรผู้มีหน้าที่ปฏิบัติการในร้านยาที่ตอบรับเข้าร่วมโครงการวิจัย คณะผู้วิจัยจึงขอความร่วมมือจากคุณในการตอบแบบสอบถาม โดยข้อมูลและความเห็นต่างๆ ในแบบสอบถามที่คุณตอบ ทางคณะผู้วิจัยจะเก็บรักษาไว้เป็นความลับสูงสุด และจะไม่มีผลกระทบใดๆต่อการประกอบการร้านยาที่คุณปฏิบัติการอยู่ โดยการนำเสนอข้อมูลจะเป็นไปในภาพรวม และไม่มีการระบุชื่อผู้ตอบแบบสอบถามเป็นรายบุคคลโดยเด็ดขาด

ขอความกรุณาจากคุณกรอกข้อมูลลงในแบบสอบถามนี้ และส่งคืนคณะผู้วิจัย

แบบสอบถามประกอบด้วย

ส่วนที่ 1 คุณภาพงานบริการที่คุณให้บริการแก่ลูกค้า

ส่วนที่ 2 ระดับความสำคัญของการให้บริการในหัวข้อต่างๆ ที่คุณคิดว่ามีผลต่อคุณภาพงานบริการของร้านยา

ส่วนที่ 3 ข้อมูลทั่วไปของผู้ให้ข้อมูล



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ส่วนที่ 2 ในส่วนนี้ขอถามเกี่ยวกับระดับความสำคัญของการให้บริการเหล่านี้ ที่คุณคิดว่ามีผลต่อคุณภาพงานบริการของร้านยานี้ **คำชี้แจง** โปรดให้คะแนนความสำคัญของหัวข้องานบริการของสถานบริการเภสัชกรรมชุมชน โดยให้คะแนนแต่ละหัวข้อตามที่ คุณคิดว่ามีความสำคัญต่อคุณ คะแนนมากสำหรับหัวข้อที่มีความสำคัญมาก คะแนนน้อยสำหรับหัวข้อที่มีความสำคัญน้อย คะแนน เต็มในแต่ละหัวข้อเท่ากับ **100** คะแนน

1. การแต่งกายของเภสัชกรและวัสดุ อุปกรณ์ที่ใช้ให้บริการ	_____ คะแนน
2. การให้บริการของเภสัชกรอย่างถูกต้อง เหมาะสม	_____ คะแนน
3. ความยินดีและเต็มใจของเภสัชกรที่จะให้บริการแก่ผู้มารับบริการ	_____ คะแนน
4. ความรู้ที่กว้างใจและมั่นใจของผู้มารับบริการเมื่อได้รับการบริการจากเภสัชกร	_____ คะแนน
5. ความเอาใจใส่ของเภสัชกรที่จะให้บริการแก่ผู้มารับบริการ	_____ คะแนน
6. ความสามารถในการติดต่อสื่อสารของเภสัชกร	_____ คะแนน

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ส่วนที่ 3 ในส่วนนี้ขอถามเกี่ยวกับข้อมูลทั่วไปของเภสัชกรผู้ตอบแบบสอบถาม

คำชี้แจง โปรดเขียนเครื่องหมาย ✓ ลงในช่อง และเติมคำในช่องว่างที่ตรงกับข้อมูลของคุณมากที่สุด

1. เพศ

ชาย หญิง

2. อายุ _____ ปี

3. ระดับการศึกษาสูงสุด

ปริญญาตรี สาขา ปริญญาโท สาขา
ปริญญาเอก สาขา

4. ประสบการณ์ในการทำงานเป็นเภสัชกรชุมชน (รวมทั้งที่ร้านยาและร้านยาอื่น) _____ ปี

5. ประสบการณ์ในการทำงานเป็นเภสัชกรชุมชน (เฉพาะที่ร้านยา) _____ ปี

6. คุณปฏิบัติงานในฐานะเภสัชกรชุมชนที่ร้านยาโดยเป็น

เภสัชกรผู้มีหน้าที่ปฏิบัติการตามกฎหมายและทำหน้าที่เต็มเวลา
เภสัชกรผู้มีหน้าที่ปฏิบัติการตามกฎหมายและทำหน้าที่บางช่วงเวลา
เภสัชกรที่ปฏิบัติหน้าที่เต็มเวลาแต่ไม่มีชื่อในใบอนุญาตฯ (ตามกฎหมาย)
เภสัชกรที่ปฏิบัติหน้าที่บางช่วงเวลาแต่ไม่มีชื่อในใบอนุญาตฯ (ตามกฎหมาย)
อื่นๆ ระบุ

7. ร้านยาที่คุณปฏิบัติการอยู่เป็นกิจการของใคร

เป็นของตนเอง (ชื่อผู้รับอนุญาตเป็นตนเองหรือคู่สมรส)
เป็นธุรกิจครอบครัวของคุณ
เป็นกิจการที่คุณเป็นหุ้นส่วนอยู่
เป็นกิจการของนายจ้าง คุณเป็นลูกจ้าง

8. รูปแบบร้านยาที่คุณปฏิบัติอยู่เป็นแบบใด

ร้านเดี่ยวนอกห้างสรรพสินค้าตึกสำนักงาน ร้านเดี่ยวในห้างสรรพสินค้าตึกสำนักงาน
ร้านยาแบบลูกโซ่ (Chain drugstore) ร้านยาแบบแฟรนไชส์ (Franchise)
ร้านยามหาวิทยาลัย อื่นๆ ระบุ

9. ปริมาณผู้มารับบริการโดยเฉลี่ยต่อวัน

1-50 คน 51-100 คน
101-150 คน มากกว่า 150 คน

10. ร้านยาที่คุณปฏิบัติอยู่มียอดขาย (ยังไม่หักค่าใช้จ่าย) จากการขายยาโดยเฉลี่ยต่อวันประมาณเท่าใด

น้อยกว่า 1000 บาท ตั้งแต่ 1000-5000 บาท
ตั้งแต่ 5001-10000 บาท ตั้งแต่ 10001-15000 บาท
ตั้งแต่ 15001-20000 บาท ตั้งแต่ 20001 บาทขึ้นไป

11. ร้านยาที่คุณปฏิบัติอยู่ได้สมัครเข้าร่วมการประเมินคุณภาพร้านยาตามเกณฑ์มาตรฐานร้านยาแล้วหรือไม่

สมัครแล้ว และผ่านการประเมินแล้ว
สมัครแล้ว แต่ยังไม่ผ่านการประเมิน
ไม่ได้สมัคร

APPENDIX G: Desire Service Expectation Level, Adequate Service Expectation Level, Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item and Dimension

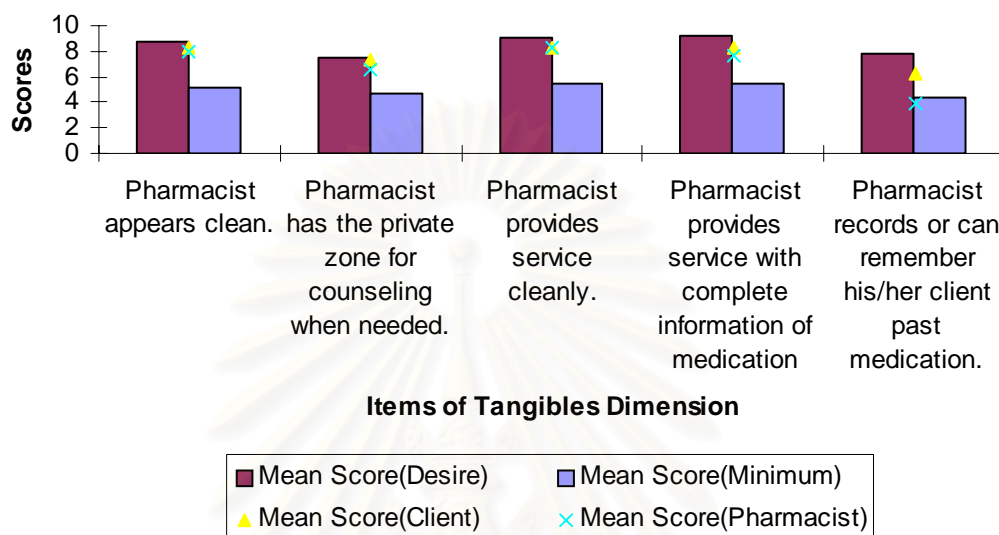


Figure 1: Desire Service Expectation Level, Adequate Service Expectation Level, Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Tangibles Dimension

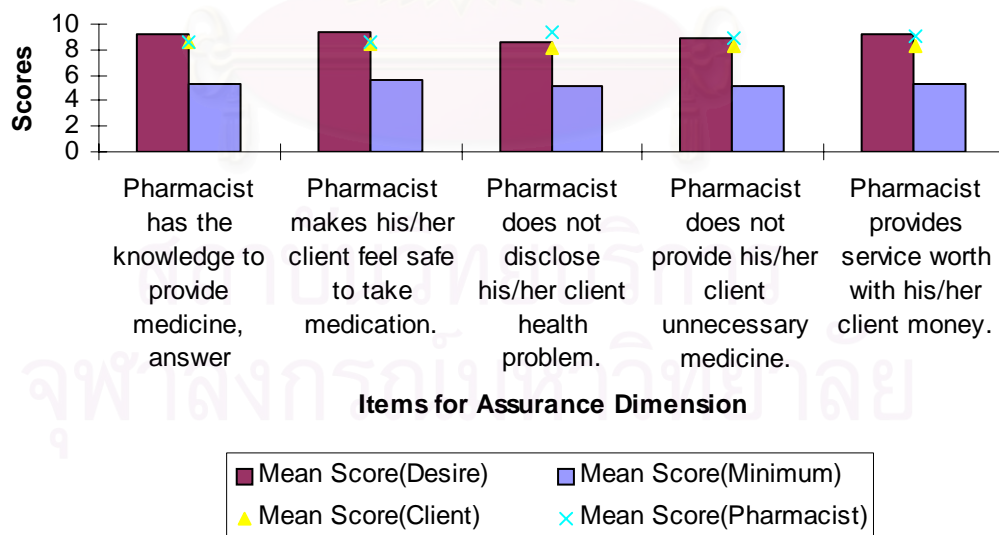


Figure 2: Desire Service Expectation Level, Adequate Service Expectation Level, Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Assurance Dimension

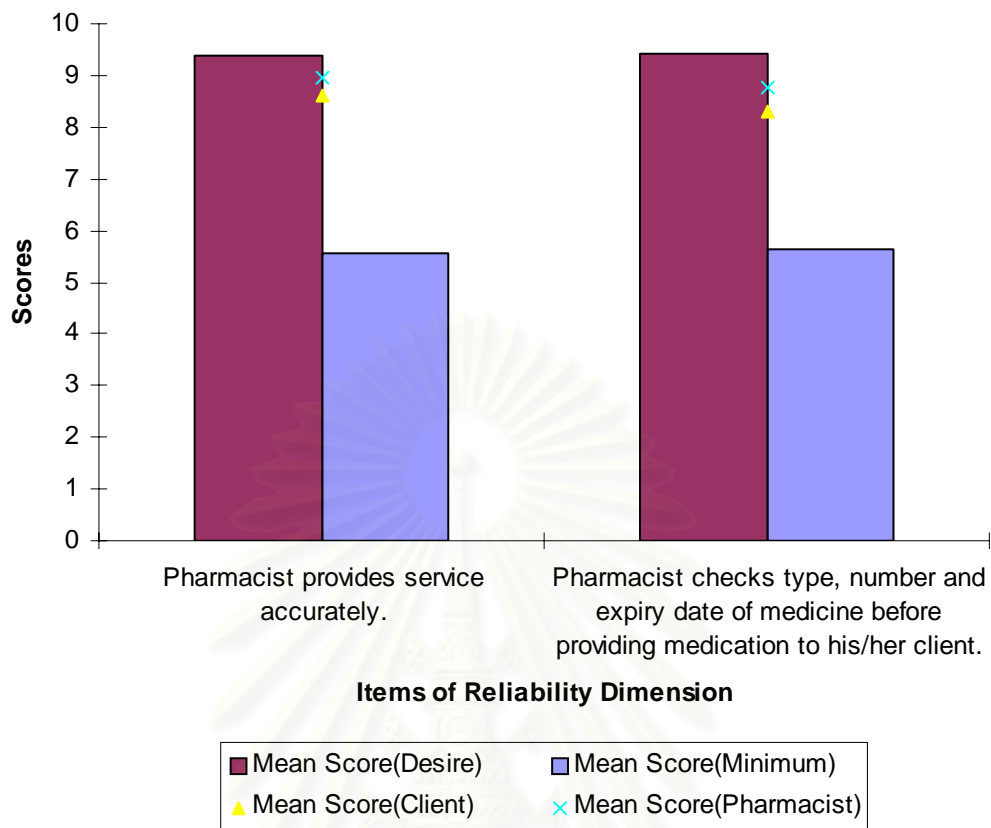


Figure 3: Desire Service Expectation Level, Adequate Service Expectation Level, Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Reliability Dimension

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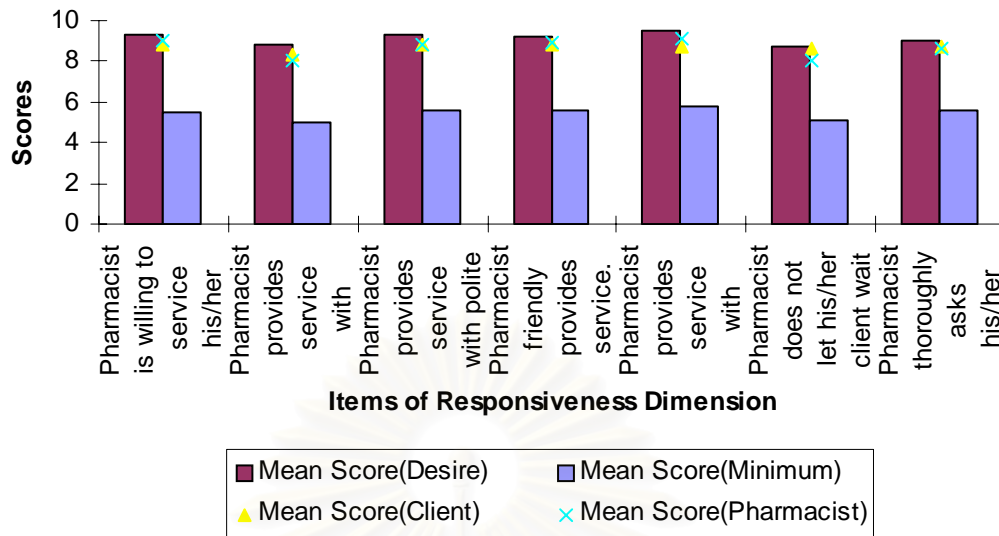


Figure 4: Desire Service Expectation Level, Adequate Service Expectation Level, Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Responsiveness Dimension

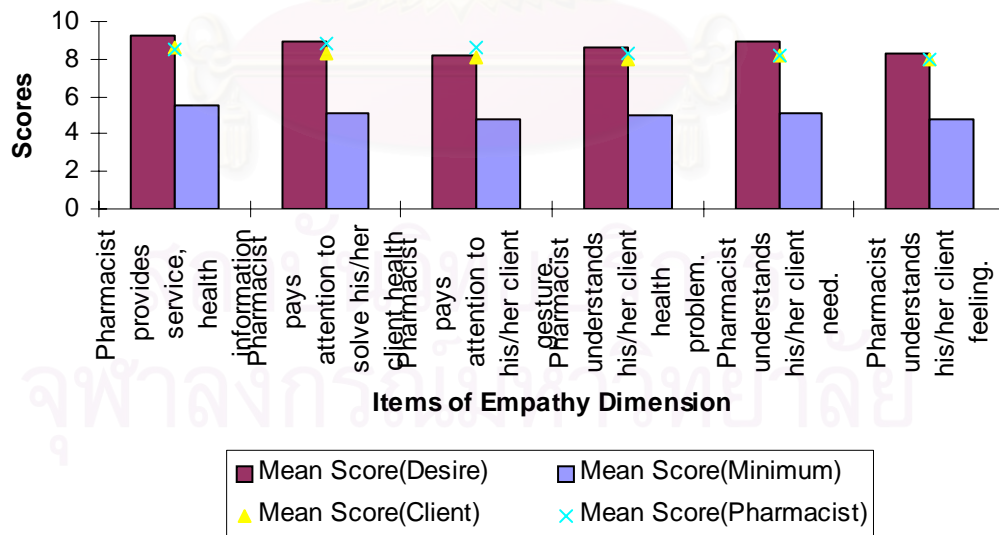


Figure 5: Desire Service Expectation Level, Adequate Service Expectation Level, Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Empathy Dimension

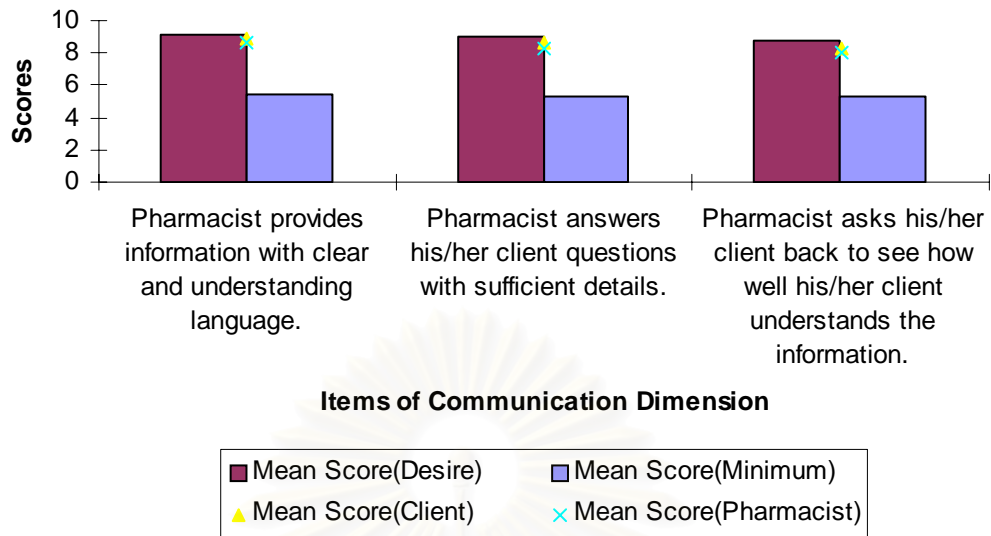


Figure 6: Desire Service Expectation Level, Adequate Service Expectation Level, Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Communication Dimension

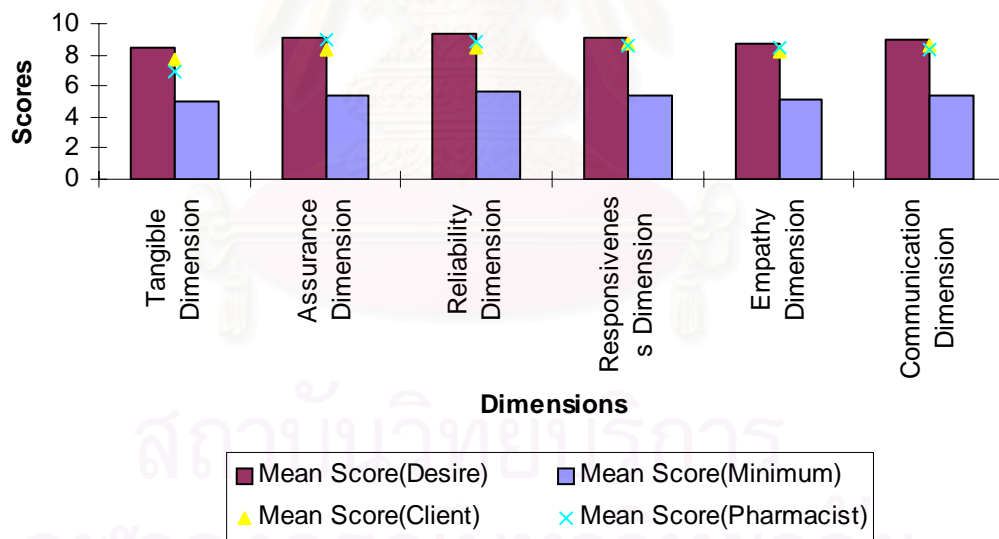


Figure 7: Desire Service Expectation Level, Adequate Service Expectation Level, Pharmacist Performance Score from Client and Pharmacist Perspectives of each Dimension

APPENDIX H: Service Quality Perceptions Relative to Zones of Tolerance of each Item and Dimension

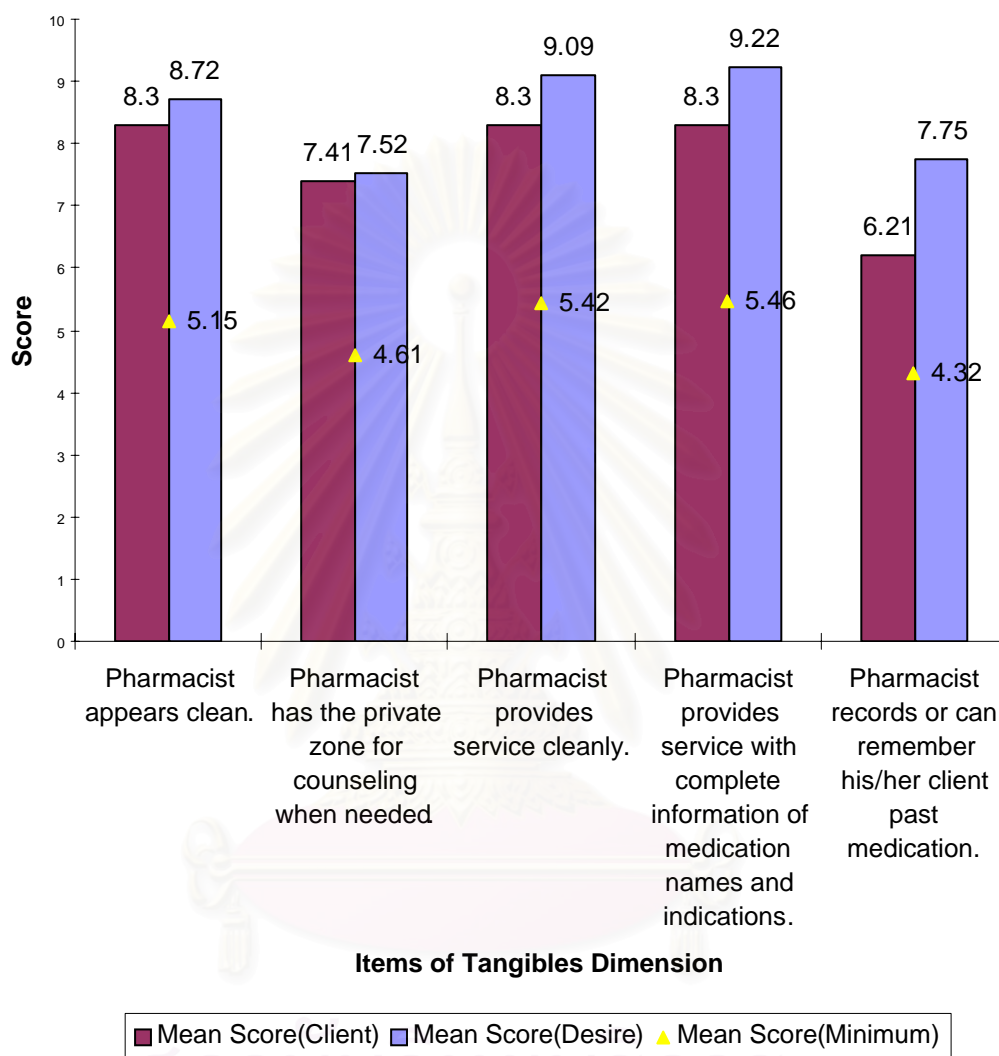


Figure 8: Service Quality Perceptions Relative to Zones of Tolerance of each Item of Tangibles Dimension

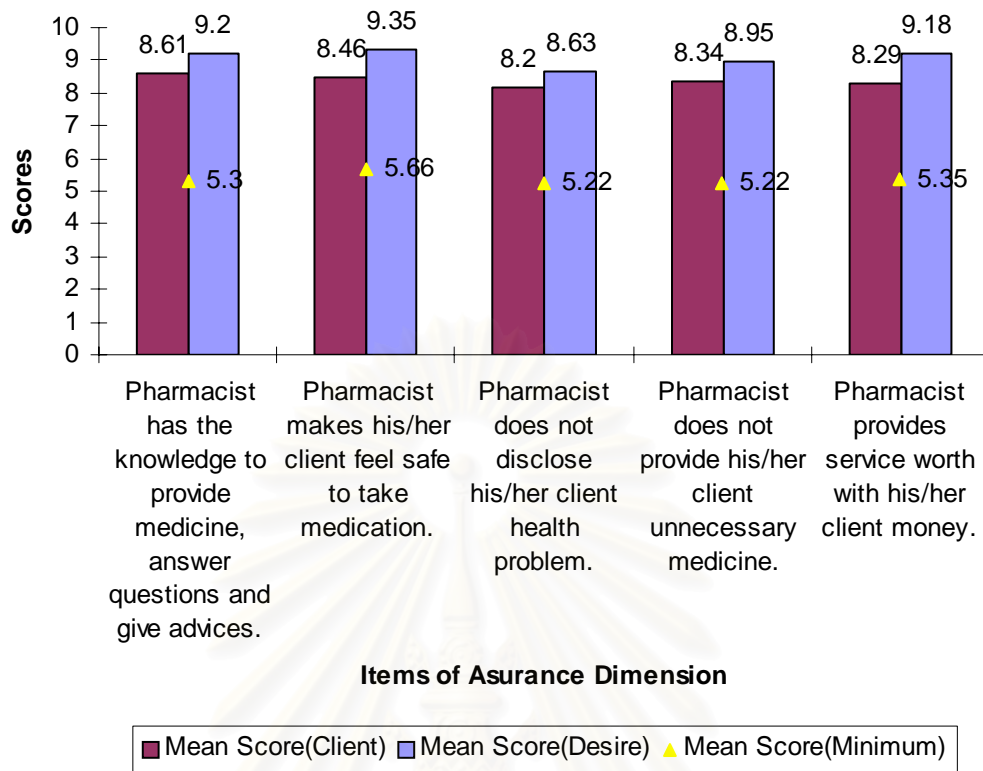


Figure 9: Service Quality Perceptions Relative to Zones of Tolerance of each Item of Assurance Dimension

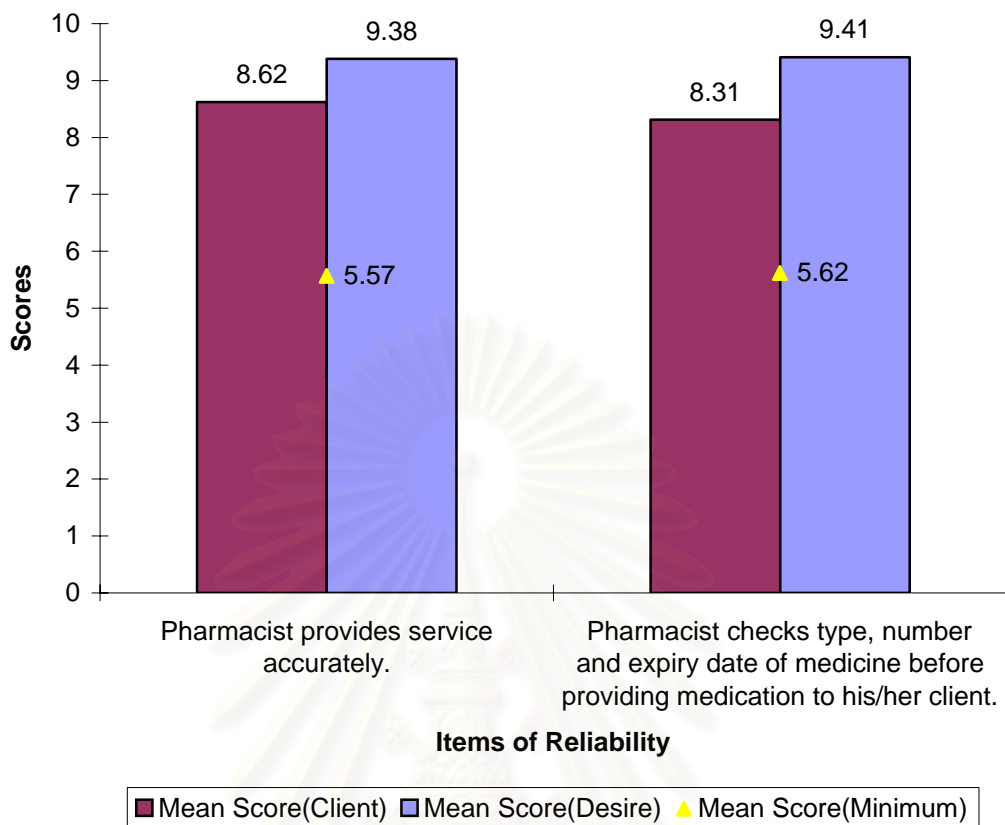


Figure 10: Service Quality Perceptions Relative to Zones of Tolerance of each Item of Reliability Dimension

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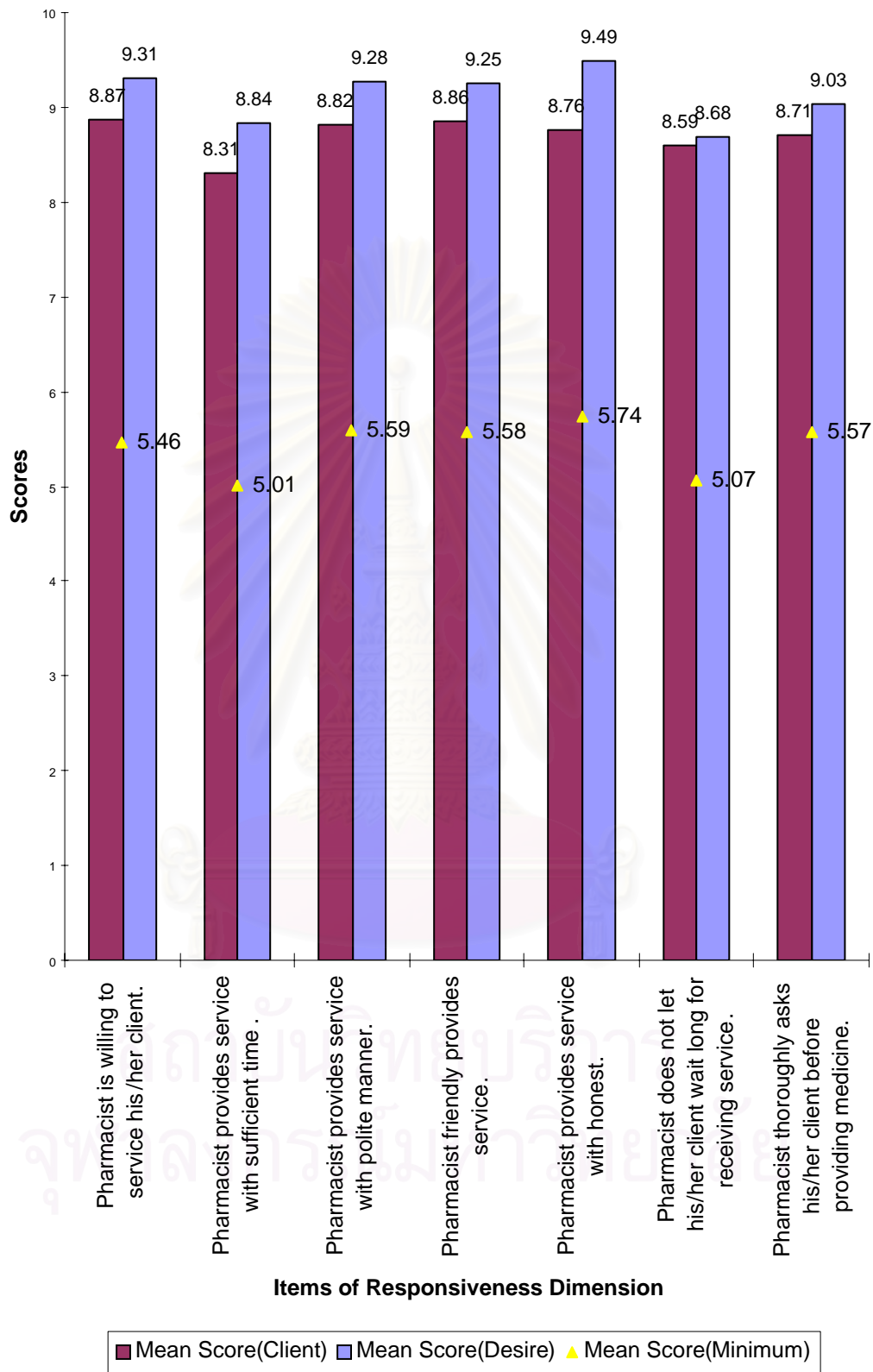


Figure 11: Service Quality Perceptions Relative to Zones of Tolerance of each Item of Responsiveness Dimension

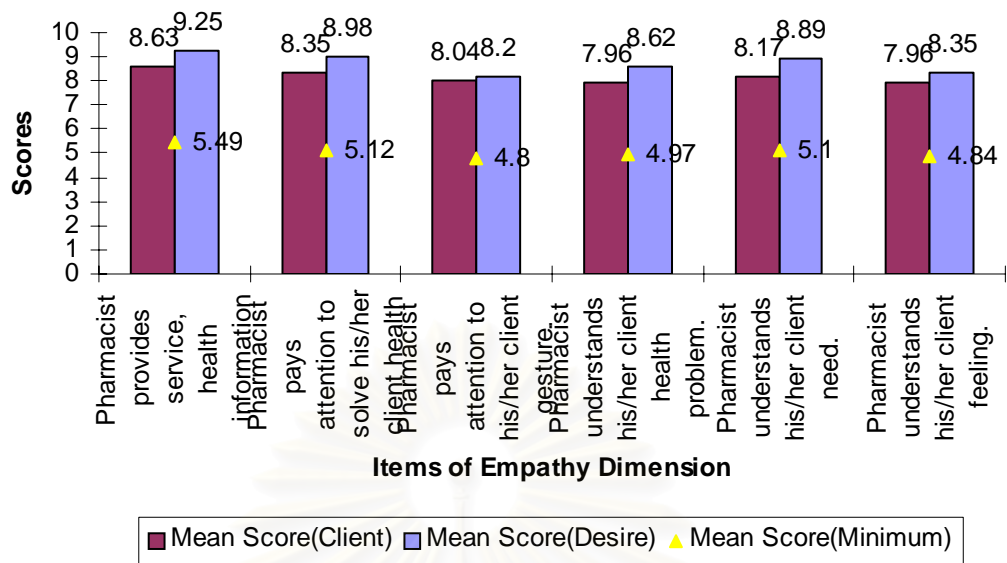


Figure 12: Service Quality Perceptions Relative to Zones of Tolerance of each Item of Empathy Dimension

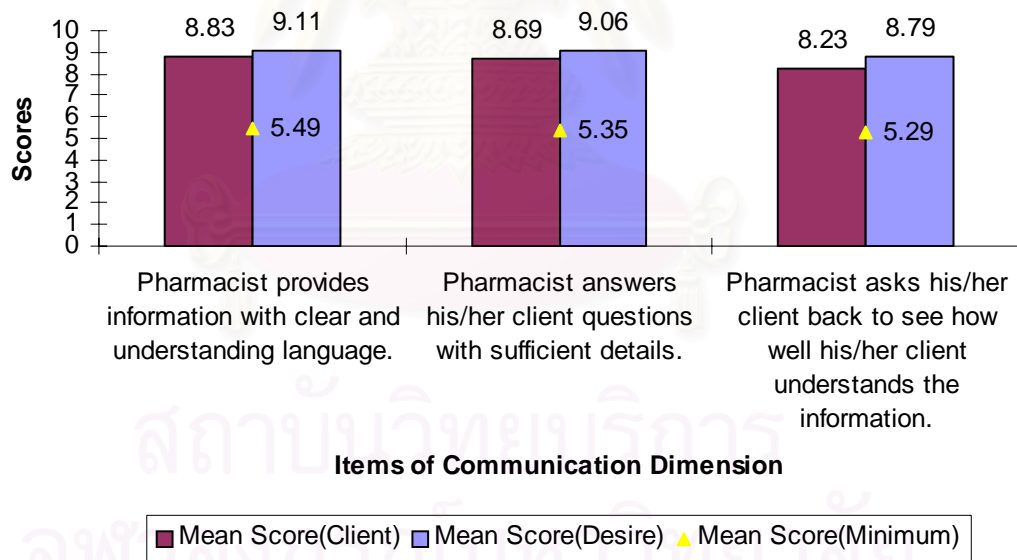


Figure 13: Service Quality Perceptions Relative to Zones of Tolerance of each Item of Communication Dimension

APPENDIX I: Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item and Dimension

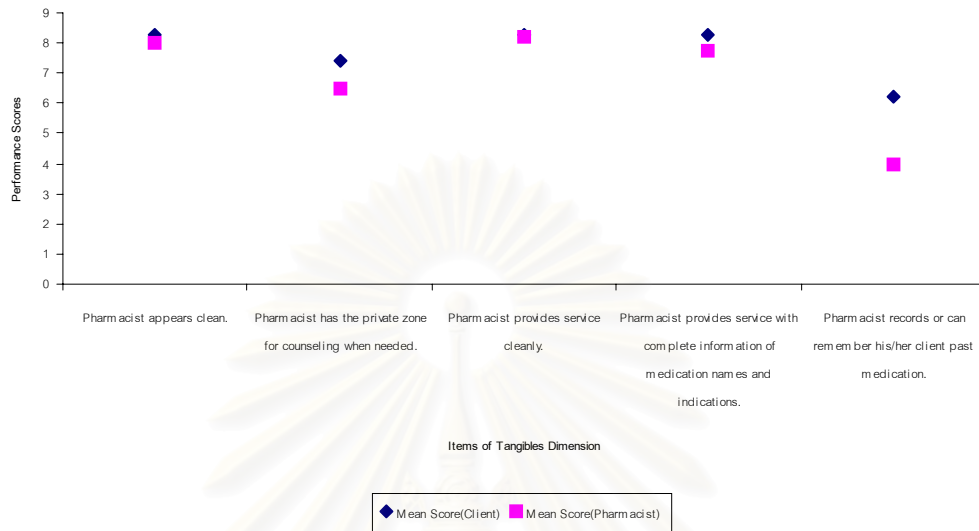


Figure 14: Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Tangibles Dimension

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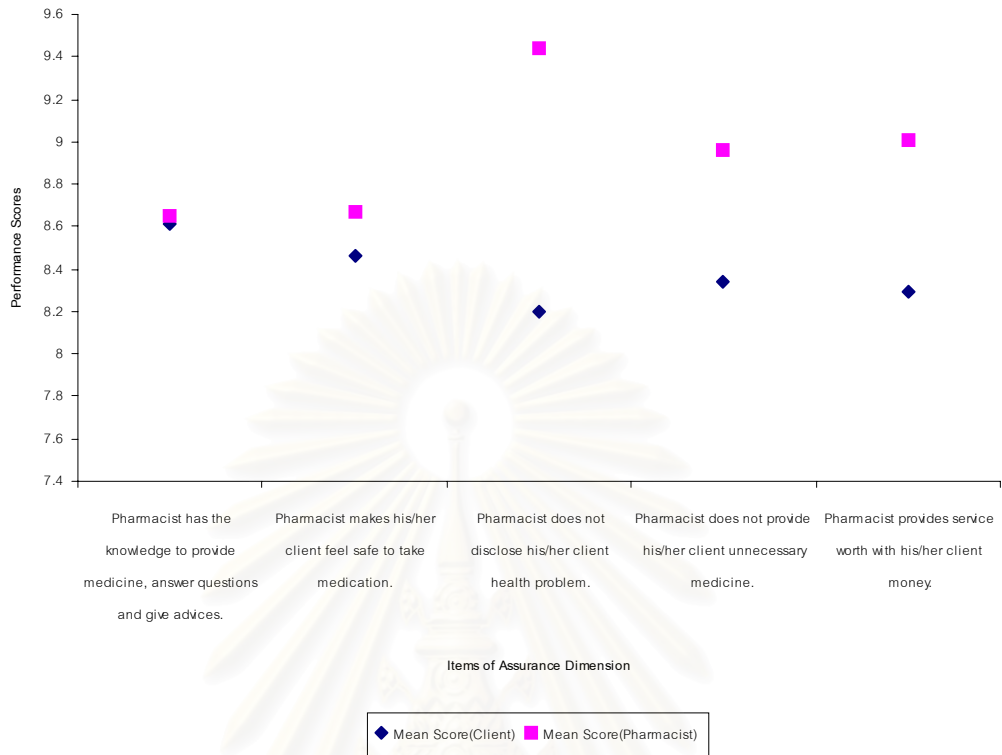


Figure 15: Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Assurance Dimension

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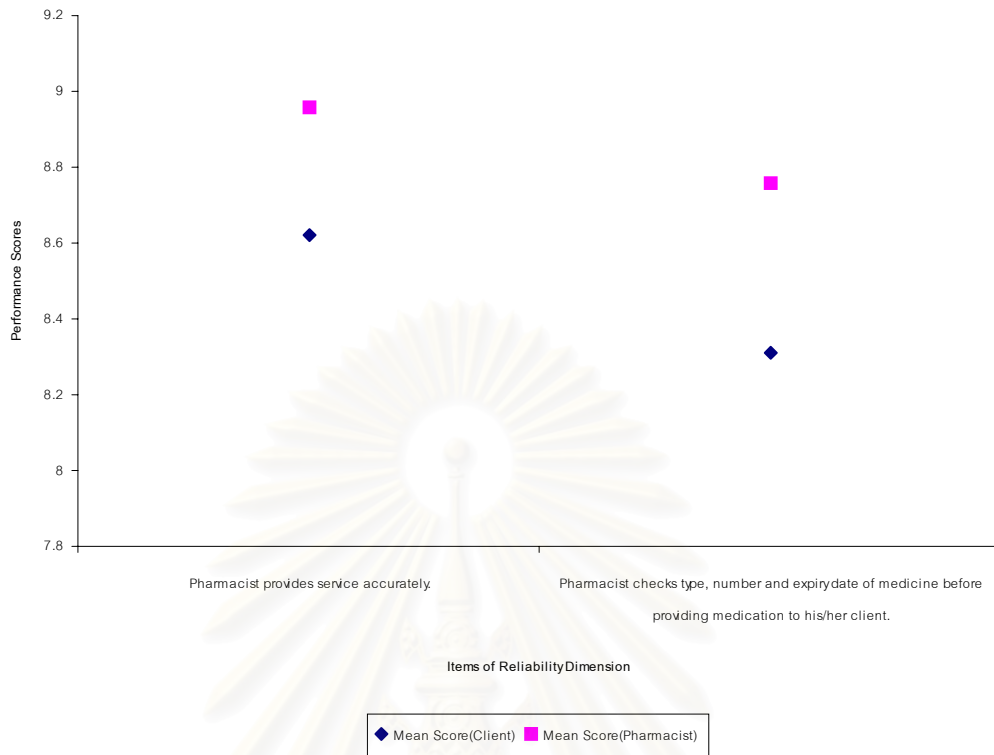


Figure 16: Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Reliability Dimension

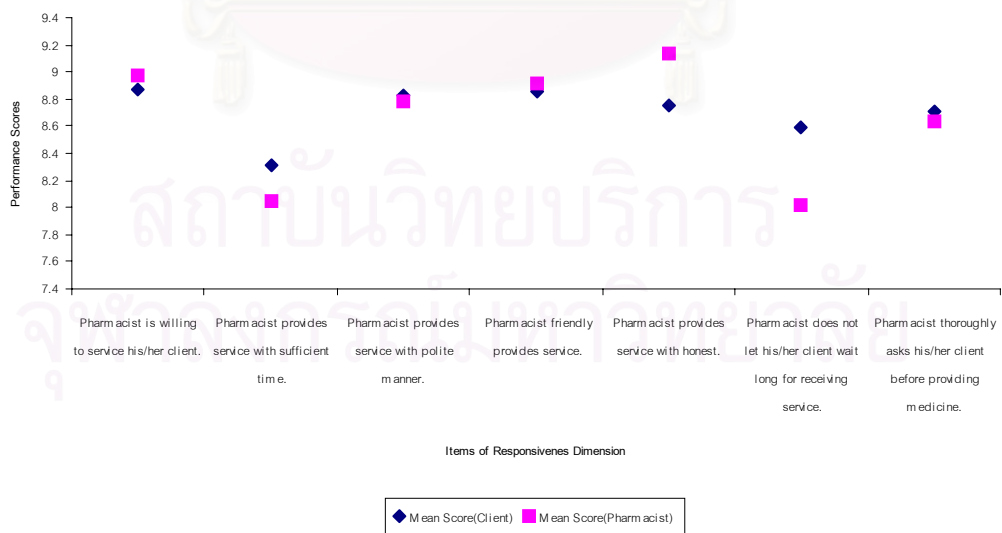


Figure 17: Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Responsiveness Dimension



Figure 18: Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Empathy Dimension

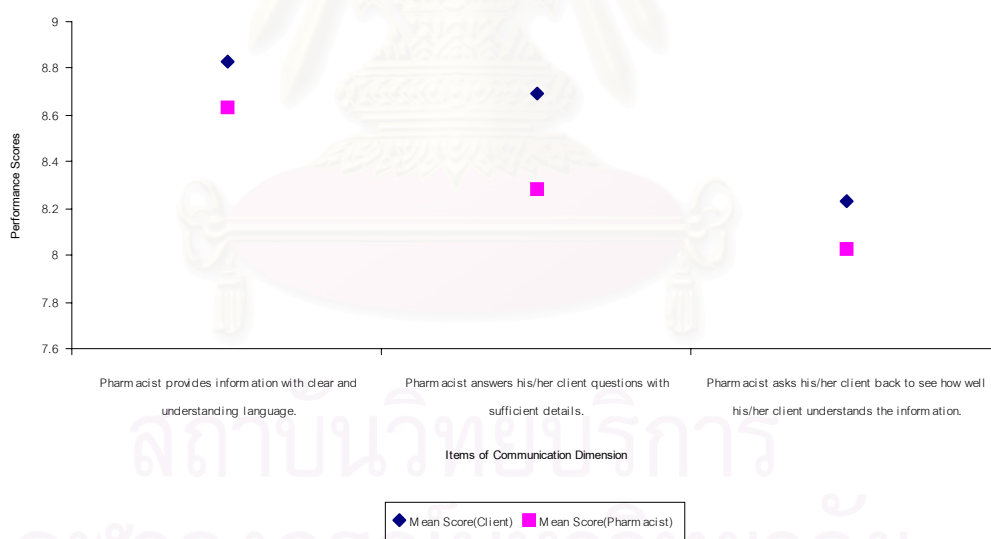


Figure 19: Pharmacist Performance Score from Client and Pharmacist Perspectives of each Item of Communication Dimension



Figure 20: Pharmacist Performance Score from Client and Pharmacist Perspectives of each Dimension

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APPENDIX J: Importance Score from Client and Pharmacist Perspectives of each Dimension

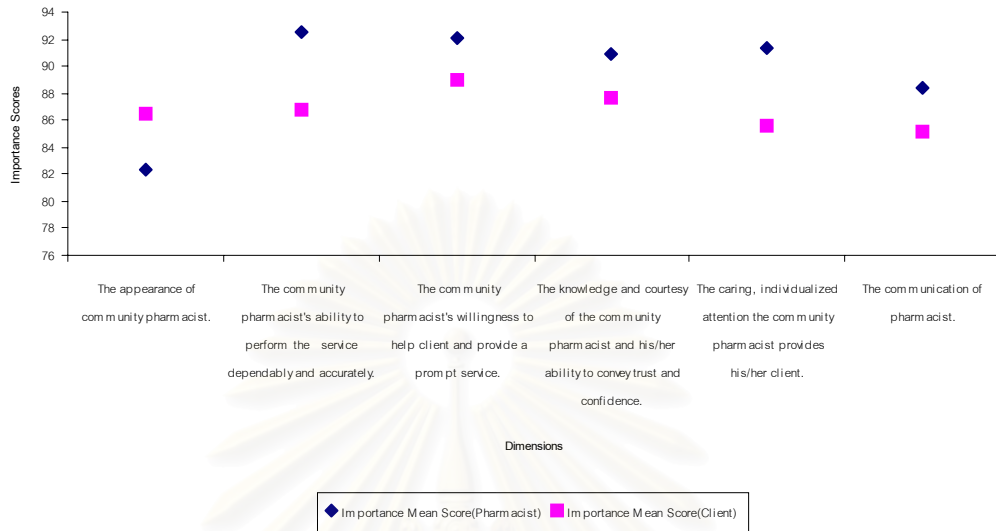


Figure 21: Importance Score from Client and Pharmacist Perspectives of each Dimension

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APPENDIX K: Importance/Perceived Service Quality Matrix of each Dimension

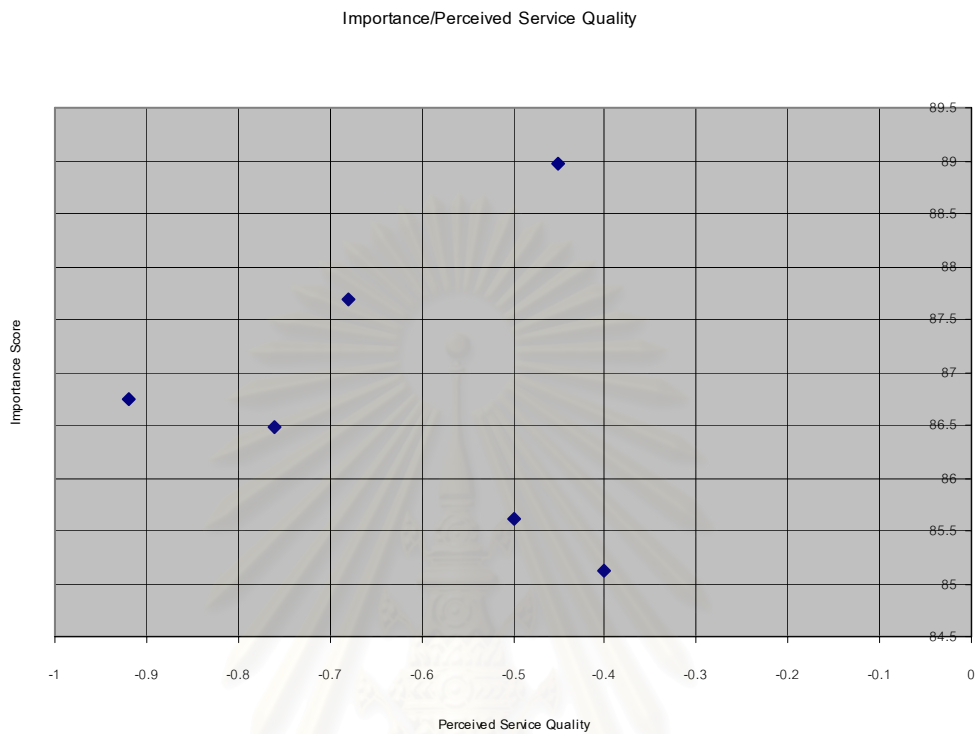


Figure 22: Importance/Perceived Service Quality Matrix of each Dimension

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APPENDIX L: Importance/Performance Matrix of each Dimension

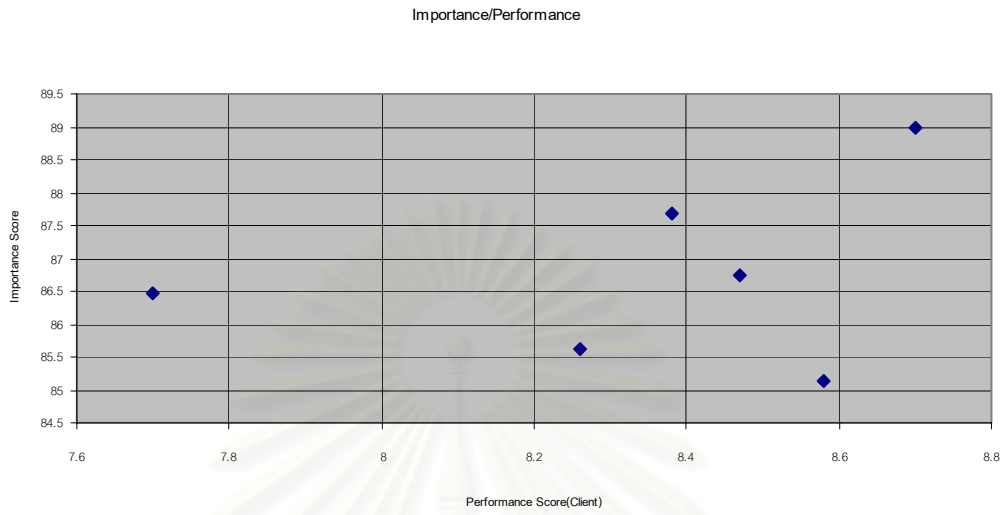


Figure 23: Importance/Performance Matrix of each Dimension

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BIOGRAPHY

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- Bachelor Degree of Pharmacy from Chiangmai University, Thailand, 1993
- Master Degree of Business Administration from Graduate Institute of Business Administration of Chulalongkorn University (SASIN), Thailand, 1996

Work Experience: Full time community pharmacist at Morfai dispensary, Chachoengsao, Thailand, since 1996



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