

AN ANALYSIS OF SERVICE QUALITY FOR CUSTOMER SATISFACTION AND
CUSTOMER RETENTION

--- AN EMPIRICAL STUDY ON THE GREY MARKET IN ATHENS, GEORGIA

by

YAN LU

(Under the Direction of Yoo-Kyoung Seock)

ABSTRACT

This paper explored how grey market consumers perceived service quality at their favorite department stores and examined how their perceived service quality might have impacted their satisfaction and customer retention (including positive word-of-mouth and repeat purchase intention) of those stores. In short, this paper focused on the relationships between perceived service quality, customer satisfaction and customer retention of the grey market segment specifically in the department store settings. Three factors, namely *Personal Interaction*, *Store Image* and *Convenience* were identified as the key service quality dimensions perceived by grey market consumers at their favorite department stores. The result also showed that *Personal Interaction* was the most important factor in determining grey market consumers' satisfaction, customer retention and their positive word-of-mouth, while *Store Image* was the most important factor for grey market consumers' repeat purchase intention.

INDEX WORDS: Grey market, Service Quality, Customer Satisfaction, Customer Retention

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To Tao

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CHAPTER I

INTRODUCTION

Background

During the past two decades, the US retailing market has become extremely competitive (Kotler & Armstrong, 1999). The revolution in retail distribution channel is among the most important reasons for severe rivalry. The number of the traditional distribution channels such as brick-and-mortar stores, catalog and TV shopping channels has increased phenomenally (Flynn, 1995). In addition, since late 1990s, the popularity of the Internet has notably further diversified the available distribution channels for the US consumers (Park & Stoel, 2002). Despite the significant increase in the number of the diversified retail distribution channels, the time that people spend shopping has declined during this period. Therefore, the retailers are facing increasingly huge challenges to survive and succeed in expanding market shares and improving financial performance.

Other than that people's shopping time has declined, today's consumers also tend to be more demanding and anticipate more during their shopping trips, such as receiving quality service and products as well as experiencing uniqueness (Raphel, 1999). In addition, with increased income levels and improved living conditions, price is no longer the only dominant element that affects consumers' purchasing decisions. According to a survey conducted in 1998 exploring the main reason for losing customers, the relative importance of price steadily declines

while service is becoming a decisive factor for consumers to decide whether they want to go shopping at a retail store or not (Wolfsgruber, 1998). This change in the consumers' purchasing decision pattern urges that retailers not only provide products with good value but also improve service to meet the customers' demanding expectations and hence to win them from the competitors. This change has further increased the challenge as well as the cost for the retailers to succeed in the market.

As consumers become more demanding and the number of retail competitors continues to expand (Koner & Zimmermann, 2000), severe competition has made customer acquisition much more difficult and more expensive than it was decades ago. Marketers have realized, however, that customer retention may potentially be an effective weapon to reduce the acquiring costs. According to Rosenberg and Crepiel (1984), the cost to attract a new customer can be as much as six times the cost to keep a current one. More recently, Raphael (1999) pointed out that the cost of attracting a new customer could be as much as ten times greater than maintaining an existing one in some retailing areas. In addition, Reichheld and Sasser (1990) indicated that by retaining an additional 5% of existing customers, a retail company could get 25 - 85% increase in profits. Thus, customer loyalty has become a key factor of a retailer's profitability (Raphael, 1999; Reichheld & Sasser, 1990; Srinivasan, Anderson & Ponnnavolu, 2002, etc.).

It is not surprising, therefore, that customer retention has become one of the most popular topics and a key objective in today's retailing market. Reichheld and Sasser (1990) indicated that customer retention is a decisive factor in fulfilling a retailer's marketing goals and achieving financial success. Hence more companies are developing customer loyalty programs to retain

customers (Kotler & Armstrong, 1999) and are transforming their approach to customer management by shifting their focus from customer acquisition to customer retention (Payner, 2000). Given the increased emphasis on customer retention, the question that draws attention is how to achieve customer retention and therefore bring success to the retailers.

The attainment of customer satisfaction is crucial in retaining customers. Satisfaction arises when the customer's experience fulfills or exceeds expectation (Johnson & Fornell, 1991). Researchers and marketers indicate that a retailer needs to satisfy a customer before retaining the customer as a loyal one. In 1980, Oliver claimed that customer satisfaction is a fundamental determinant of a customer's long-term purchase intention because usually the satisfied customers will be more willing to return to the retailer for repeat purchases, to recommend the retailer to other consumers, and are also less sensitive to price (Anderson & Sullivan, 1993). Thus, customer satisfaction has become an important issue in the marketing area because of its importance in leading to increased customer retention and hence the retailer's success in the market (Jones & Sasser, 1995). According to Siu and Cheung (2001), a retail company's success in financial performance and market shares largely depends on the satisfied customers who are willing to purchase the products repeatedly and recommend the company's products to other consumers.

In the face of capricious consumers' demand and increasing competition, customer satisfaction has become a critical factor of retaining customers. More questions that draw attention are how to achieve customer satisfaction effectively and hence to successfully encourage customers to purchase more as well as to recommend other consumers to purchase in

the future. Could service be a crucial driver to improve customer satisfaction and customer retention, since today's consumers are less price sensitive and more service concerned? In fact, some articles and books have stressed the importance of service in satisfying the consumers and retaining them as loyal customers. Traditionally, in the retail stores, a service is a business transaction associated with tangible products, which happens between the retailer and the customer with the purpose of meeting the customer's needs (Ramaswamy, 1996) and encouraging the customer to purchase more in the future. Service quality is a universal method in the marketing literature to measure and quantify the service perceived by the customers (Gronroos, 1984; Parasuraman, Zeithaml & Berry, 1985, 1988). Researchers have recognized that, in various retail store settings, service quality has a positive influence on both customer satisfaction and customer retention (Sivadas & Baker-Prewitt, 2000) and hence service quality is believed to be an important tool for the retailers to satisfy and retain their customers.

Oliver and Swan (1989) pointed out that customer satisfaction is an evaluative or emotional response to the service a customer perceived and some studies have suggested that favorably perceived service quality leads to improved customer satisfaction (Bolton & Drew, 1991; Boulding, Kalra, Staelin & Zeithaml, 1993; Cronin, Brady & Hult, 2000). Besides, researchers also claimed that service quality determines customer retention both directly and indirectly via customer satisfaction (Bennett & Higgins, 1988; Dabholkar, Thorpe & Rentz, 1996). Realizing the importance of the service, retailers have attempted to improve their service to satisfy the consumers' more diverse personal demands and continually increasing expectations (Kotler, 1997) and to retain them as the loyal customers.

The Problem

Numerous studies have addressed the relationships between service quality, customer satisfaction and customer retention in various industries (Parasuraman & Grewal, 2000; Taylor & Baker, 1994, etc.), especially in the retail store settings (Siu & Chow, 2003). However, as the US retailing market is traditionally viewed as comprised of relatively younger consumers, researchers and marketers, to a large extent, underestimate or even ignore the segment of elderly people. Therefore, limited research to date has specifically examined the relationships between elderly consumers' perceived service quality, their satisfaction and customer retention in the retail store settings. In fact, elderly consumers are becoming a more and more crucial market both demographically and economically (Carrigan & Szmigin, 1999) and more attention should be given to this consumer group.

The number of elderly people in the US has grown significantly and according to the US Census Bureau (2004), by 2010, about one-third of the US population will be aged over fifty, which equates to 98.6 million elderly consumers. In this study, the demographic segment of the people over fifty is defined as the grey market (Carrigan, 1998). The US Census Bureau (2004) also pointed out that the most growth of the grey market comes from the 21.3 million aging baby boomers who are moving into their fifties. Baby boomers, who were born during 1946 to 1958, tend to spend more money compared with their counterparts who lived through the Depression and who are more inclined to save ("Meeting consumer needs," 1991). Hence the grey market with more baby boomers will become an even more important consumer segment. In addition, the grey market to date has controlled over half of the nation's discretionary income, and those

households headed by the grey market spent much more than the average households (US Census Bureau, 2004).

The demographic change caused by the rise in the number of the grey market has impacted the US retailing market greatly. Sales in housing, clothing and healthcare have enjoyed a significant increase as a result (Moschis, 1992 & 1994). In recent years, some marketers have regarded the grey market as a huge and highly valued consumer group, and some said that the opportunities for retail growth in the next 20 years would come from the grey market (“Aging boomers”, 1996). While the grey market with relatively higher purchasing power have gained some attention, retailers who intend to target grey market consumers still treat them generally the same as the younger customers, which has proved to be ineffective (Moschis, 2003).

Actually, the lack of academic foundations regarding the relationships between grey market consumers’ perceived service quality, their satisfaction and future purchase intentions and/or behaviors has made it difficult for retailers to penetrate the grey market and retain them as loyal customers through the right service. Meanwhile, the retailers’ traditional strategy of fixating at the young market leads most researches to focus on the younger consumers but ignore the grey market. As a result, grey market consumers’ shopping behavior is still an under-researched area in marketing practice and literature. As per a few previous studies which addressed grey market consumers’ shopping behavior, those consumers are believed to pay more attention to services such as courteous treatment and assistance from the sales people than younger consumers (Carrigan, 1998). In addition, services such as convenient parking, rest areas, and store layout are also their concerns for shopping (Shim & Mahoney, 1992). Given the importance of service for

the grey market, it is necessary to reveal more about their specific shopping behavior so that the retailers could effectively satisfy and retain them with the right service.

The grey market has a preference for shopping at department stores (“Department stores ignore”, 2005; Lumpkin & Greenberg, 1982; Moye & Giddings, 2002). In contrast to other retailers, the department stores usually provide much larger varieties of merchandise to grey market consumers’ taste and appeal. In the meantime, the more personally caring in-store services provided by some upscale department stores may be particularly appealing to those wealthier grey market consumers. Finally, most of the grey market consumers were born and grew up during the time when the department stores were an important part of their shopping experience, and the nostalgic appeal of the department stores to those consumers is a competitive advantage that other types of retailers cannot easily copy. However, there is no study addressing the relationships between grey market consumers’ perceived service quality in the department store, their satisfaction and customer retention relating to that department store.

It is important to conduct a study to reveal the grey market’s shopping behavior in department stores. In addition, this study could also be helpful to the department stores’ management because in recent years, consumers widely criticize department stores as places where shopping is inconvenient, service is inadequate, and prices are not competitive compared with specialty and discount stores (Moin, 1997). The department stores have been facing market shrinkage amid heated competition due to the revolution in the retail distribution channel. Specialty stores and discount stores in the US have been gradually eating up much of the traditional department stores’ market shares for a long time. More recently, online retailers have

experienced phenomenal market expansion by offering consumers a quicker and more convenient way of shopping, further encroaching the market traditionally dominated by the department stores. The lack of competitive edge against other types of retailers has been the major reason that led to shrinkage in market shares of the department stores.

Nevertheless, there may be some market niche to the department stores' advantage if appropriate strategies are implemented. Most specialty retailers mainly target young and middle-aged consumers, but largely ignore the grey market. This is especially the case with online retailers because grey market consumers seldom shop on the Internet as younger consumers do. Consequently, department stores may explore the potential business opportunities associated with the long-neglected and under-served grey market. The important thing for the department stores' management is to allocate their limited resources to improve service in a more effective way to satisfy the grey market's needs and expectations (Wong & Sohal, 2003).

The present study used grey market consumers as the sample to examine their way of perceiving service quality at their favorite department stores, and to testify the relationships between their perceived service quality, their satisfaction and customer retention of those stores. By doing so, it was expected that the bias of using younger people to predict the grey market's behavior would be minimized. With this study, the department stores' management would be able to have a better understanding of the grey market and hence to take advantage of the business opportunities linked to this long-neglected and under-served consumer segment. Achieving higher customer satisfaction and customer retention in this particular demographic segment may contribute to the department stores' long-term success in a competitive business environment.

Therefore, this study is important not only because it disclosed the consumer behavior of a long-neglected but potentially lucrative consumer group called the grey market, but also because it might help the traditional department stores stop the continuing shrinkage of their market shares by knowing more about grey market consumers' shopping behaviors and hence satisfying and retaining them through the right service.

Research Objectives

This study attempted to identify the grey market's service quality perception at their favorite department stores and to examine the relationships between grey market consumers' perceived service quality, their satisfaction and customer retention of those stores. The specific research objectives of this study were:

- 1) To identify the service quality dimensions that are important to grey market consumers at their favorite department stores.
- 2) To examine the relationship between grey market consumers' perceived service quality at their favorite department stores and their satisfaction of those stores.
- 3) To examine the relationship between grey market consumers' perceived service quality at their favorite department stores and customer retention of those stores.
- 4) To examine the relationship between grey market consumers' satisfaction of their favorite department stores and customer retention of those stores.

CHAPTER II

LITERATURE REVIEW

Service Quality

Service quality is defined as a customer's judgment or assessment of an entity's overall excellence or superiority of a service (Parasuraman *et al.*, 1988). During the past several decades, service quality has been a significant research topic in the marketing literature due to its apparent relationships to customer satisfaction (Boulding *et al.*, 1993), customer retention (Bennett & Higgins, 1988), sales revenue and market shares (Siu & Cheung, 2001). While service quality is known to be based on a multi-dimensional structure (Gronroos, 1984 & 1990), there is no general agreement as to the nature or content of the dimensions because service quality's features of intangibility, heterogeneity and inseparability (Bateson, 1995). During the past two decades, researchers have developed several conceptual models to explain the service quality's inner structure and to measure consumers' perceived service quality in different industries.

Parasuraman *et al.* (1985) developed the "gap model" that conceptualizes perceived service quality as the degree and the direction of discrepancy between customers' perception of the actual service performance and their expectation. Ten dimensions, namely "tangibles", "reliability", "responsiveness", "competence", "courtesy", "credibility", "security", "communication", "access", and "understanding", are introduced as important factors that relate to consumers' perceived service quality (Parasurman *et al.*, 1985). This exploratory study not

only revealed ten significant determinants of service quality but also reported the important propositions about consumers' perceptions of service quality for the first time. In 1988, Parasuraman *et al.* pointed out that some dimensions developed in their 1985 study are highly correlated and that the ten determinants need to be refined into more accurate dimensions. Based on the "gap model" and the framework of service quality determinants established in 1985, Parasuraman *et al.* (1988) developed a standardized multi-item instrument named SERVQUAL, with a set of universal statements of service quality dimensions to measure consumers' perceived service quality (see Figure 2.1). In their study (Parasuraman *et al.*, 1988), the researchers categorized service into five different aspects: "reliability", "responsiveness", "tangibles", "assurance", and "empathy". "Reliability" includes the ability to perform the promised service dependably and accurately, while "responsiveness" reflects the willingness to help customers and provide prompt service. "Assurance" accounts for the employees' knowledge and their ability to inspire trust and confidence. "Empathy" is about the caring and individualized attention that is given to customers and tangible is about the appearance of physical facilities, equipment, and other materials (Parasuraman *et al.*, 1988).

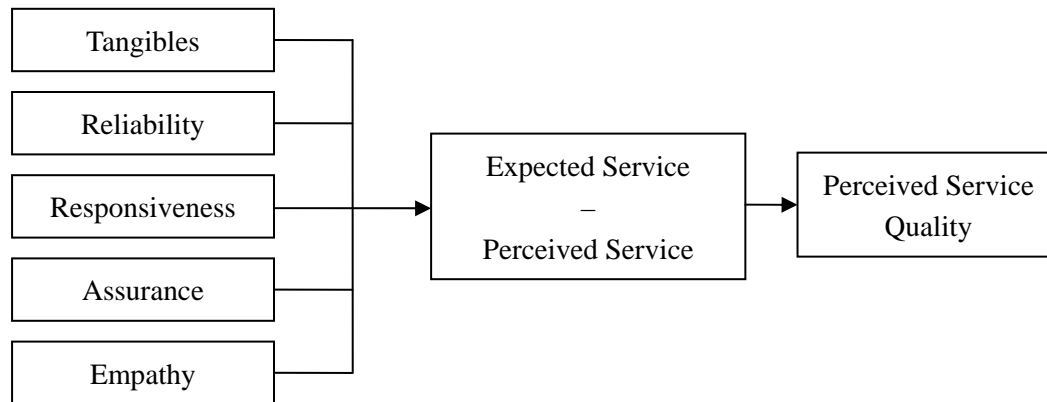


Figure 2.1 SERVQUAL
Source: Parasuraman *et al.*, 1988

Following the development of the SERVQUAL instrument (Parasuraman *et al.*, 1988), researchers have attempted to replicate or refute its structure and conceptualization (Carman, 1990; Cronin & Taylor, 1992; Teas, 1993). SERVQUAL has been widely applied in the marketing literature. However, some studies indicate that this instrument is not appropriate because it focuses on the service delivery process but does not address the service encounter outcomes (Gronroos, 1990; Mangold & Babakus, 1991; Richard & Allaway, 1993). The developers of SERVQUAL initially suggested that service quality consists of both service delivery process and service encounter outcome dimensions, but the SERVQUAL instrument does not include any measurement of the latter dimension. Therefore, some researchers criticized that SERVQUAL ignores the effort of the service encounter outcome dimension and pointed out that utilizing only process attribute to explain and predict consumers' behavior might be a

misspecification of consumers' perceived service quality and therefore imply low predictive validity (Richard & Allaway, 1993).

Because SERVQUAL only focuses on the process of service delivery, some researchers developed service quality models with additional aspects to be considered. Gronroos (1984 & 1990) noted that consumers' perceived service quality has two dimensions: "functional" (or "process") dimension and "technical" (or "outcome") dimension. "Technical" quality refers to the outcome of the process in which the resources are used, while "functional" quality relates to the nature of the interaction between the service provider and the customer as well as the process by which the core service is delivered (Gronroos, 1984). Gronroos (1984 & 1990) also emphasized the importance of corporate image in the experience of perceiving service quality and introduced the "image" dimension as the third component in the service quality model. Different from the other two dimensions, the "image" works as a filter in the perception of service quality because there is a general perspective that a favorable and well-known image has an impact on customer perceptions in many aspects (Gronroos, 1990). For example, consumers usually ignore minor mistakes if the service provider has a positive image, but when the provider's image is negative, the impact of any mistake will often be magnified in consumers' minds (Gronroos, 1984 & 1990).

In response to Gronroos' (1984 & 1990) division of service quality into "technical" service and "functional" service, McDougall and Levesque (1994) argued that this structure is inadequate and suggested to add "physical environment" into the model (see Figure 2.2). Rust and Oliver (1994) applied a similar modification to Gronroos's model by identifying three

dimensions as “customer-employee interaction” (i.e. “functional” quality), “service environment”, and “outcome” (i.e. “technical” quality). However, Gronroos’ service quality model has not been widely applied in the marketing researches. The difficulty in identifying universal relevant determinants of “technical” quality is a major issue. Richard and Allaway (1993) pointed out that though the SERVQUAL instrument could measure the “functional” quality dimension in Gronroos’s model, various studies have used different variables to measure “technical” quality and findings to date suggest that there is no underlying latent variable associated with a “technical” quality dimension (Kang & James, 2004). In addition, some problems related to SERVQUAL, which explains variation in “functional” service dimension, were unfolded during the last two decades.

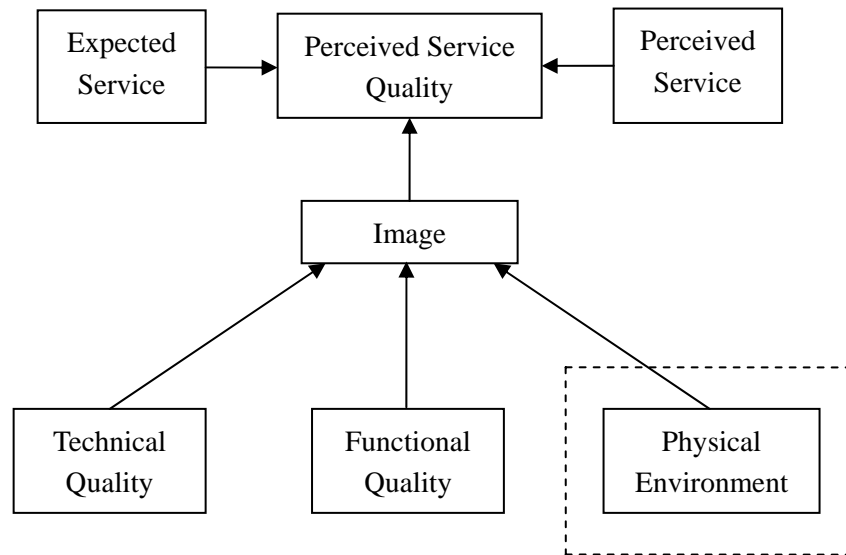


Figure 2.2 Improved Gronroos's Service Quality Model

Source: Developed on the basis of Gronroos, 1984 &1990 and McDougall & Levesque, 1994

The primary problem about SERVQUAL is that the service quality dimensions tend to be “service type dependent” (Mehta, Lalwani & Han, 2000). The five service industries used in developing the key dimensions for SERVQUAL are homogeneous pure service industries (Parasuraman *et al.*, 1988). Therefore, some researchers suggested that, while the SERVQUAL instrument can explain consumers’ perceived service quality in certain pure service industries like retail banks, it is necessary to modify the model by adding more dimensions and items or change the wording when applying SERVQUAL to other types of service industries (Carmen, 1990), such as the health care industry (Babakus & Mangold, 1989; Bowers & Swan, 1992), the utility industry (Babakus & Boller, 1991), the dry cleaning and the fast food industries (Cronin &

Taylor, 1992), etc. In addition, some researches indicated that the SERVQUAL instrument cannot validate its usefulness in a variety of retail store settings and hence is not appropriate to explain service quality in those settings such as department stores and discount stores, which usually provide their customers not only intangible service but also tangible products during the consumption procedure (Finn & Lamb, 1991; Guiry, Hutchinson & Weitz, 1992).

More seriously, some researchers questioned the conceptual basis of SERVQUAL. SERVQUAL uses the “gap model” to explain consumers’ perceived service quality, which means that perceived service quality results from an evaluation process where consumers compare their expectation with their perception of the service and the difference and direction between the two variables create the consumers’ perceived service quality (Gronroos, 1984 & 1990; Parasuraman *et al.*, 1985 & 1988). As SERVQUAL includes both perception component and expectation component, Cronin and Taylor (1992) compared SERVQUAL with its perception component (or “performance scale”) named SERVPERF and the result shows that SERVPERF outperforms SERVQUAL by explaining more of the variation in consumers’ perceived service quality. Based on their conclusion, therefore, Cronin and Taylor (1992) argued that consumers’ perceived service quality should be based on an “attitude model”, which refers consumers’ attitude towards the actual performance, rather than on a “gap model”, which indicates the difference between consumers’ expectation and perception of the actual performance. This is mainly because consumers usually have higher expectation toward service and their expectation may fluctuate greatly over time (Cronin & Taylor, 1992). Similarly, Teas (1993) also recommended using the “evaluated performance model” (consumers’ evaluation toward the actual performance) instead

of SERVQUAL to measure consumers' perceived service quality. This conclusion resonates with Cronin and Taylor's (1992) claim that SERVPERF is more effective than SERVQUAL in a variety of industries.

The SERVQUAL instrument based on the "gap model" is not empirically valid to define perceived service quality. Though its perception component SERVPERF has been regarded as a more effective instrument to measure consumers' perceived service quality, the dimensions used in SERVPERF are still the same as those in SERVQUAL, which are not appropriate for various retail store industries according to Finn and Lamb's (1991) study. Therefore, the generalization and usefulness of SERVQUAL and SERVPERF have been both doubted, especially in retail store settings such as department stores, discount stores and supermarkets, etc. (Dabholkar *et al.*, 1996). Researchers attempted to develop a more appropriate model that could measure perceived service quality in retail store industries. In 1996, Dabholkar *et al.* proposed a hierarchical factor structure (or the "DTR model") to assess consumers' perceived service quality in retail store settings such as the department stores (see Figure 2.3). To avoid the problems symbiotic with SERVQUAL, the "DTR model" uses only performance scale measurement based on the attitude model to examine consumers' perceived service quality, as previous studies indicate that the performance scale has a stronger predictive power than the "gap model" does (Cronin & Taylor, 1992). In addition, Dabholkar *et al.* (1996) also made some adjustment to the previously developed structure with one dimensional level and developed the "DTR model" with both dimensional level and sub-dimensional level which recognizes the multifaceted nature of some service quality dimensions.

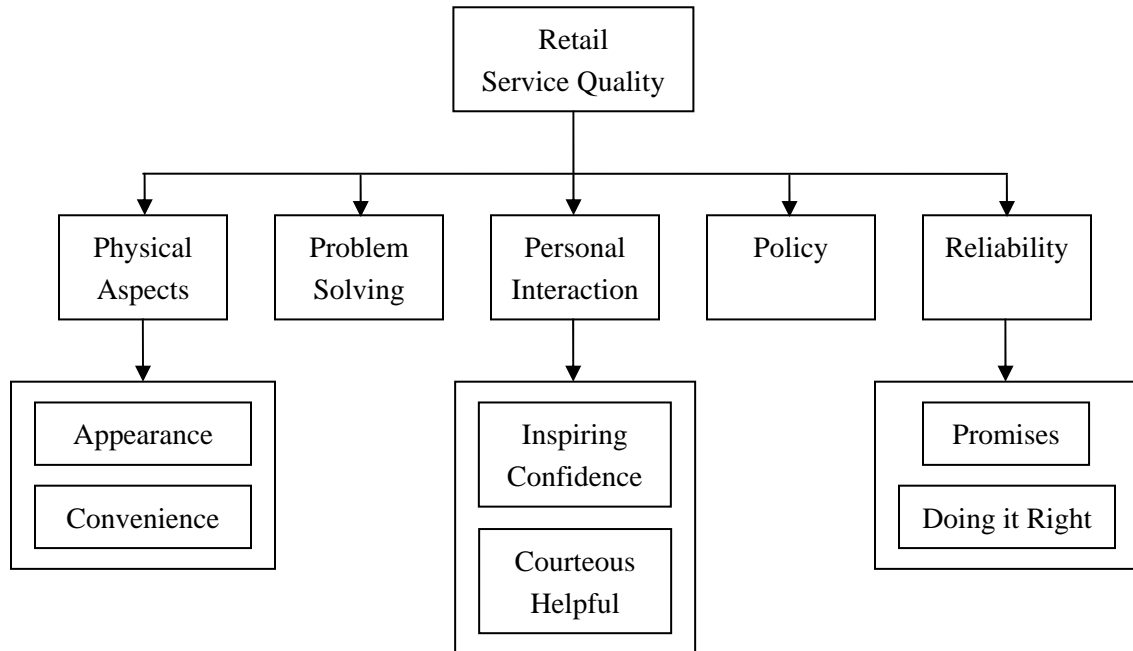


Figure 2.3 The “DTR Model”
Source: Dabholkar *et al.*, 1996

The five dimensions included in the “DTR model” are “physical aspects”, “reliability”, “personal interaction”, “problem solving”, and “policy”. Table 2.1 shows the descriptions of those five retail service dimensions that are used in the “DTR model”. Including both “appearance” of the physical facilities and “convenience” of the store layout and public areas, the “physical aspects” in the “DTR model” has a wider meaning than the “tangible” in SERVQUAL. Similar to the “reliability” in SERVQUAL but more specific to the service in retail store settings, the “reliability” in the “DTR model” involves two sub-dimensions about the store’s ability to keep “promise” and “doing things right”. The “personal interaction” consists of

two sub-dimensions named “inspiring confidence” and “courteousness/helpfulness”. Combining information that comes from “responsiveness”, “empathy” and “assurance” in SERVQUAL, “personal interaction” contains information of whether or not the store has courteous and helpful employees who could provide prompt service, inspire confidence and trust, and provide individualized attention to the customers. Dabholkar *et al.* (1996) also proposed two new dimensions named “problem solving” and “policy” that the SERVQUAL instrument does not cover. “Problem solving” is dedicated to measure the store’s ability to handle potential problems because researchers think that service recovery is a critical part of good service and should be separated from “personal interaction”. Besides, “policy” represents the aspects of service quality that are directly influenced by store policies such as convenient parking, store hours and credit card availability (Dabholkar *et al.*, 1996).

Table 2.1
Retail Service Dimensions in the “DTR model”

Retail Service Quality Dimensions	Descriptions
Physical Aspects	This dimension has a broader meaning than does SERVQUAL. It not only includes the appearance of the physical facilities, but encompasses the convenience offered by the layout of the physical facilities.
Reliability	This dimension is a combination of keeping promise and “doing it right”.
Personal Interaction	This dimension includes both the service employees inspiring confidence and employees being courteous / helpful.
Problem Solving	This dimension addresses the handling of returns and exchanges as well as of complaints. It is specifically related to the handling of problems.
Policy	This dimension captures aspects of service quality that are directly influenced by the store policy.

Source: Dabholkar *et al.*, 1996

The “DTR model” has been applied to test consumers’ perceived service quality in department stores and other retail store settings, and the results have been found to possess strong validity and reliability as a measurement of retail service quality. Mehta et al. (2000) compared SERVPERF with the “DTR model” within two different retail store settings: the service-intensive retail store and the product-intensive retail store. The result indicates that SERVPERF seems suitable for service-intensive retail stores while the “DTR model” is superior in product-intensive retail stores. Therefore, researchers suggested that SERVPERF is more preferable to apply to the pure service and service-intensive industries such as electronic goods retailing stores while the “DTR model” is more preferable to apply to the product-intensive retail

store settings of the non-pure service industries, such as department stores, specialty stores and supermarkets (Mehta *et al.*, 2000).

Customer Satisfaction

Customer satisfaction is an emotional response to the service perceived by the customer during his/her consumption experience (Day, 1984; Oliver & Swan, 1989; Westbrook & Oliver, 1991). In a more specific way, customer satisfaction is defined as the outcome of the subjective evaluation of a product or service in terms of whether that product or service has met the customer's needs and expectations (Engel, Blackwell & Miniard, 1990; Johnson & Fornell, 1991; Zeithaml & Bitner, 2000). Customer satisfaction has become an important issue in today's retailing market because researchers and marketers have admitted that a company's success in financial performance and market shares largely depends on the satisfied customers who are willing to purchase products or service repeatedly and recommend the company's products or service to other consumers (Siu & Cheung, 2001).

Several articles and books have stressed the positive relationship between service quality and customer satisfaction. Oliver (1980) indicated that customer satisfaction is a cognitive and affective reaction to a service. According to Berry, Parasuraman and Zeithaml's (1988), service has become a powerful competitive weapon for a company to achieve customer satisfaction. Taylor and Baker (1994) also found out that high service quality leads to high customer satisfaction. In another study, researchers indicated that consumers' perceived service quality is a more decisive determinant of customer satisfaction than their perceived value (Fornell, Johnson,

Anderson, Cha & Bryant, 1996). Similarly, Duffy and Ketchand (1998) pointed out that customer satisfaction is strongly influenced by service quality.

In the retail store setting, service, usually combined with tangible products, is perceived by customers, with its particular goal to satisfy customers and motivate them to consume (Yong, 2000). However, not all service can successfully satisfy customers and motivate them to consume. Iacobucci, Ostrom and Grayson (1995) came to the conclusion that service improvements that are not based on customers' needs will not improve their satisfaction. Therefore, identifying service quality's crucial dimensions that are important to the customers will contribute more effectively to improvement in customer satisfaction (Jun, Yang & Kim, 2004).

Researchers and marketers aim to find out these essential dimensions of service quality in many different industries. An assessment of service quality of supermarkets indicates that "personal interaction" and "physical aspects" are the two most important dimensions in determining customer satisfaction (Siu & Chow, 2003). In the grocery store sector, customer satisfaction mainly comes from the sales force through interpersonal relations, communication, cooperativeness and promotional activities (Biong, 1993). Within department stores, the relationship between service quality and customer satisfaction is basically consistent with results in studies for different industries. Sivadas and Baker-Prewitt (2000) concluded that, in department stores, consumers' perceived service quality influences customer satisfaction. In addition, among the dimensions of service quality, "physical aspects" is the most significant predictor of customer satisfaction (Wong & Sohal, 2003).

Customer Retention

Customer retention refers to a favorable attitude towards a company in addition to purchasing its products repeatedly (Day, 1969; Dick & Basu, 1994; Jarvis & Wilcox, 1977). Customer retention is important to a retailer not only because it can increase revenues through increased customer spending and reduced operating costs, but also because of the power of word of mouth (WOM) advertising, the increase in price premium, the building of switching barriers, and the possibility of cross selling (Reichheld & Teal, 1996). These various advantages of customer retention cannot be overemphasized in today's severely competitive market. Nonetheless, probably for the sake of simplicity and cost-effective considerations, most academic research on customer retention focused on two of the most important factors, namely positive WOM and repeat purchase intention (Reichheld & Teal, 1996). These two factors represent the customers' willingness to recommend the product and/or service to other consumers and their likelihood of repeat purchase in the future.

Customer retention is regarded as a potential purchase behavior, which has an important meaning to a company in assessing the practical usefulness (Griffin, 1996). As mentioned previously, the driver for customer satisfaction is consistent in many studies, that is, favorable service quality perceptions lead to improved customer satisfaction. Nevertheless, customer retention has more complicated drivers and studies indicate that two of the most effective means of generating customer retention are customer satisfaction (Lee, Lee & Feick, 2001) and service quality (Parasuraman & Grewal, 2000).

Service quality is an important strategy to retain customers (Berry *et al.*, 1988). Yong (2000) indicated that service aims to motivate people to consume, which means that consumers' perceived service quality can influence customer retention by enhancing their repeat purchase intention. According to a 1998 survey by Wolfsgrubner, the main reason for losing customers has shifted. The relative importance of price steadily declined from 68% to 50% during the period between 1995 and 1997, whereas the relative importance of service dramatically increased from 17% to 34% during the same period (Wolfsgrubner, 1998). The author indicated that this trend would continue with service becoming a decisive factor for consumers in deciding whether to shop at a retail store. Clearly, service has become a critical customer retention tool.

Danaher and Rust (1994) concluded that consumers' perceived service quality is associated with their positive WOM of the product or service. Similarly, Zeithaml, Berry & Parasuraman (1996) suggested that favorable assessment of service quality leads to favorable behavioral intentions such as positive WOM and preference for one company over others. Proper service has the potential to prolong and intensify the company-customer relationship, create customer satisfaction and strengthen customer retention ultimately (Meyer & Blumelhuber, 2000). But the caveat is that not all service is suited to achieve these goals and some researchers found that only service that properly caters to the customers' needs can be conducive to retaining them as loyal ones (Meyer & Blumelhuber, 2000).

Customer satisfaction has traditionally been regarded as a fundamental determinant of long-term purchase intention (Oliver, 1980). The satisfied customers tend to have higher intention to purchase repeatedly and spread positive WOM as well, which eventually benefits the

company in the form of higher financial rewards (Anderson & Sullivan, 1993; Fornell, Ittner & Larcker, 1995). In addition, Meyer and Dornach (1998) found that those satisfied customers are more proactive and positive with regard to repeat purchase, recommending the company to others and cross buying. According to Meyer and Dornach (1998), customer satisfaction is the most important “handle” available for the retailers to successfully bond the customers and the improved customer satisfaction can noticeably increase the likelihood of the customers recommending the store to other consumers and returning to the store to make more purchases in the future.

Other previous studies also indicated that customer satisfaction influences customer retention (Anderson & Sullivan, 1993; Lee *et al.*, 2001; Parasuraman & Grewal, 2000; Patterson & Spreng, 1997). Taylor and Baker (1994) pointed out that service quality influences customer satisfaction, and customer satisfaction in turn impacts customer retention. Anderson and Fornell (1994) also came to the conclusion that, to a large extent, customer retention is determined by customer satisfaction. Similarly, Day’s (1994) conclusion reflects that service quality could impact customer satisfaction, and higher customer satisfaction together with favorably perceived service quality lead to further improved customer retention. The notion that service quality along with customer satisfaction influences customer retention was further confirmed by Ranaweera and Prabhu (2003).

In the department store setting, consumers’ overall perceived service quality influences both customer satisfaction and customer retention, which consists of positive WOM and repeat purchase intention. In addition, customer satisfaction also impacts customer retention (Sivadas &

Baker-Prewitt, 2000). Siu and Cheung (2001) came to the conclusion that among the service quality dimensions, “policy” is salient on repeat purchase intention while “physical aspects” is important to positive WOM. In another study, Wong and Sohal (2003) found that service quality is positively associated with customer retention, and “physical aspects” is the most significant predictor of customer satisfaction and customer retention. It is also important to note that, in different industries, significant dimensions of service quality can be different in influencing customer retention (Rosen & Karwan, 1994). For example, “understanding the customer” is important in restaurants; “assurance” and “reliability” are important in health care; “reliability” and “tangible” are important in lecture teaching; and “assurance” is important in bookstores (Rosen & Karwan, 1994).

Building on many previous studies, a customer retention theory is concluded by the author of this study to demonstrate the relationships between service quality, customer satisfaction and customer retention (Figure 2.4). In this customer retention theory, service quality, customer satisfaction and customer retention are separate constructs with the following interacted relationships: 1) service quality influences customer satisfaction (Taylor & Baker, 1994; etc.); 2) service quality and customer satisfaction are the two predictors of customer retention (Lee *et al.*, 2001; Parasuraman & Grewal, 2000); 3) customer retention is reflected in two aspects: positive WOM and repeat purchase intention (Reichheld & Teal, 1996).

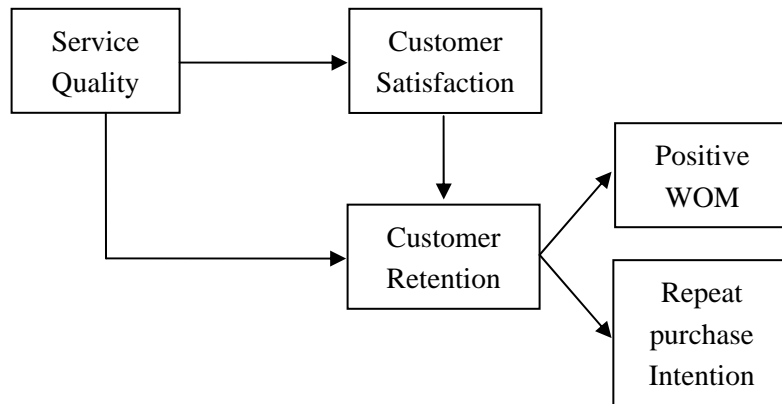


Figure 2.4 The Customer Retention Theory

Source: Generalized on the basis of Cronin & Taylor, 1992; Fornell, *et al.*, 1996; Lee, *et al.*, 2001; Oliver, 1980; Parasuraman & Grewal, 2000; Reichheld & Teal, 1996; Taylor & Baker, 1994; etc.

Grey Market

The grey market is defined as the demographic segment composed of people over fifty (Carrigan, 1998). One of the most obvious demographic trends in the US is that the population is aging, meaning that both the number and the percentage of the grey market in relation to the total population have been steadily increasing. As shown in Figure 2.5, from 2000 through 2010, the number of people aged 50 - 64 is expected to increase the most, by 3.92%, to account for 18.89% of the total US population (US Census Bureau, 2004). The US Census Bureau (2004) estimates that by 2010, 31.92% of the US population will be aged over fifty, which translates into a grey market of 98.6 million consumers.

The grey market is substantial not just in terms of the absolute number of the grey market people, but also in the size of their discretionary incomes (Johnson, 1996). Discretionary income

is the money left for spending or saving after people pay their taxes and buy necessities. The US Census Bureau (2004) reported that the grey market controls 52% of the nation's discretionary income. Since many businesses depend heavily on consumers' discretionary spending for sales and profits, how to transform people's discretionary incomes into purchases has become an important marketing question (Johnson, 1996).

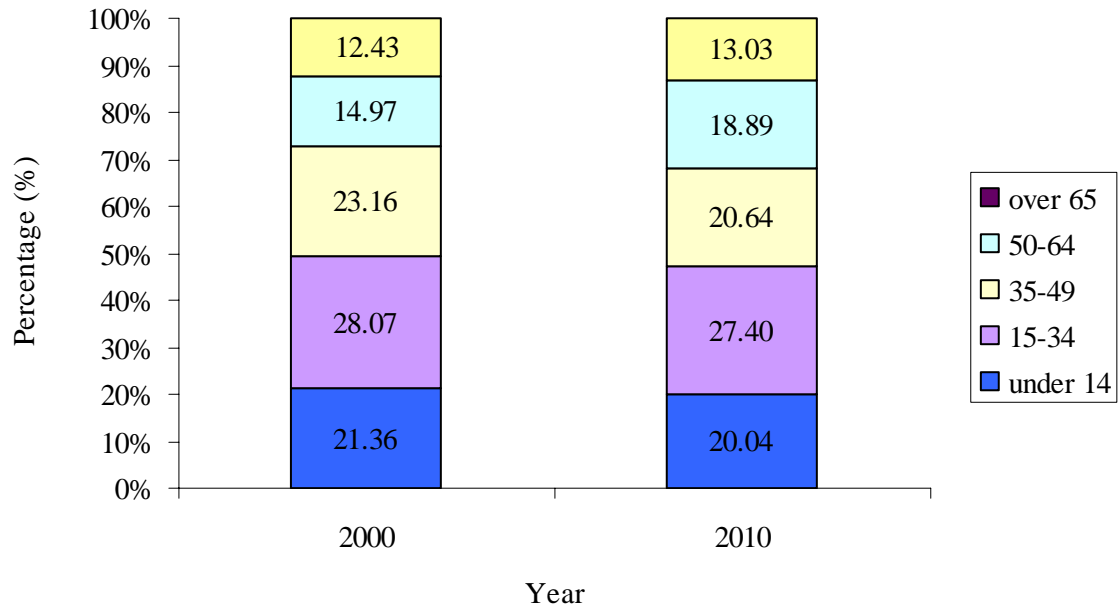


Figure 2.5 Population Percentage by Age (2000 to 2010)
Source: US Census Bureau (2004)

Russell (1997) indicated that the spending of the grey market is rising while the spending of the younger consumers is falling. In addition, he pointed out that the 45 - 54 age group's

spending is 17% more than the average person on a per capita basis, and the next in rank is the 55 - 64 age group, who spend 15% more than the average person on a per capita basis in the US. The dramatic rise in the number of grey market consumers who have strong purchasing power has impacted the American retailing market significantly. Housing, clothing, healthcare, toys, among many other things, have enjoyed sales increases in demand by the grey market (Moschis, 1992 & 1994). Therefore retailers are motivated to make a greater effort into satisfying the particular needs of those grey market consumers (Pettigrew, Mizerski, & Donovan, 2005).

According to previous studies, the grey market has identifiable characteristics that differentiate the grey market from the younger consumers (Moschis, 1992; Moschis & Mathur, 1993). Among these characteristics, high expectation of service quality is a common one. Researchers found that the grey market is usually less impacted by the product's price, more preference for high service and product quality, with greater levels of store loyalty and a tendency to make joint buying decisions (Tongren, 1988; Moschis, 1992; Moschis & Mathur, 1993). Marketers could improve their customer service in order to attract grey market consumers because they are more likely to mention service as a reason to shop at one particular store, and they are especially sensitive to the service they receive from the retailer. Semon (1995) concluded in his study that the fifty-plus consumers are overtly brand-loyal, provided that they receive reliable and quality service in their purchase experience.

In the past, grey market consumers had a preference for shopping in department stores where they are known by the sales personnel (Lumpkin & Greenberg, 1982; Moye & Giddings, 2002). Personal interaction, however, is not enough to satisfy and retain those customers in an

era when competition has been much more severe than before. Shim and Mahoney (1992) pointed out that store services such as courteous treatment and assistance from the sales people, convenient parking, in-store rest areas, readable labels/tags, and ease of store layout are all important to grey market consumers. Mitchell (1996) found that the new generation of the grey market are more value-conscious and normally demand a high level of overall service in their purchase experience.

Another important characteristic is that the grey market is the least likely to complain. Moschis (1992) found that if they feel dissatisfied about the service, they just simply switch to another retailer. This characteristic leads to a lack of information about their customer satisfaction/dissatisfaction toward the quality of service, and the lack of their feedback and post-purchase evaluation results in few strategy alignments to compound their dissatisfaction (Carrigan, 1998). Therefore, some marketers said that it is not easy to satisfy and retain the grey market and more seriously, this difficulty is becoming even more noticeable as the upcoming new generation of the grey market have more diverse characteristics and higher requirements toward service (Rosenman, 1999).

In today's retailing market, many companies still ignore the grey market. Traditionally, the US retailing market has been viewed as comprised of relatively younger people. Despite the shrinking percentage of younger consumers in the population, the marketers remain fixated at the younger market aged between 18 and 35. Some marketers may be aware of the demographic changes but have been slow in responding to them. Even though a few retailers decided to market to the grey market, they treat grey market consumers generally the same as the younger

consumers, which has proved to be ineffective (Moschis, 2003). Important as the younger population market is, the marketers have neglected another demographically and economically crucial market – the grey market (Carrigan & Szmigin, 1999).

CHAPTER III

CONCEPTUAL FOUNDATION

Statement of Purpose

The purpose of this study was to identify grey market consumers' perceived service quality at their favorite department stores and to examine the relationships between grey market consumers' perceived service quality, their satisfaction and customer retention of those stores. Based on the marketing literature about service quality, customer satisfaction and customer retention (Dabdkar *et al.*, 1996; Fornell *et al.*, 1996; Lee *et al.*, 2001; Oliver, 1980; Parasuraman & Grewal, 2000; Taylor & Baker, 1994), a framework was developed by the author as the conceptual basis in this study and used to demonstrate the relationships that were presented in the research hypotheses for testing.

Conceptual Framework

Previous studies discussed various instruments to examine consumers' perceived service quality. Among those, the four mentioned in the literature review are applied in a variety of industries, including the SERVQUAL instrument, Gronroos's model, the SERVPERF scale, and the "DTR model". The SERVQUAL instrument and Gronroos's model are based on the "gap model" to define the perceived service quality, whereas the SERVPERF scale and the "DTR model" use only the performance scale to examine consumers' perceived service quality.

According to the literature, the latter two have been proved to be more effective to explain the variation of consumers' perceived service quality. Furthermore, different from the SERVPERF scale, which has been validated in pure service and service-intensive industries, the "DTR model" is more appropriate to explain consumers' perceived service quality in retail store settings such as department stores and hence was adopted in this study to examine grey market consumers' perceived service quality at their favorite department stores.

As shown in Figure 2.4 in the literature review, the customer retention theory was developed to explain the relationships between service quality, customer satisfaction and customer retention. A conceptual framework has been further developed integrating the "DTR model" of retail perceived service quality (Dabholkar *et al.*, 1996) and the customer retention theory (based on Fornell, *et al.*, 1996; Lee, *et al.*, 2001; Oliver, 1980; Parasuraman & Grewal, 2000; Taylor & Baker, 1994; etc.) to address the research questions and demonstrate the relationships between department stores' service quality perceived by grey market consumers, their satisfaction and customer retention of those stores (see Figure 3.1).

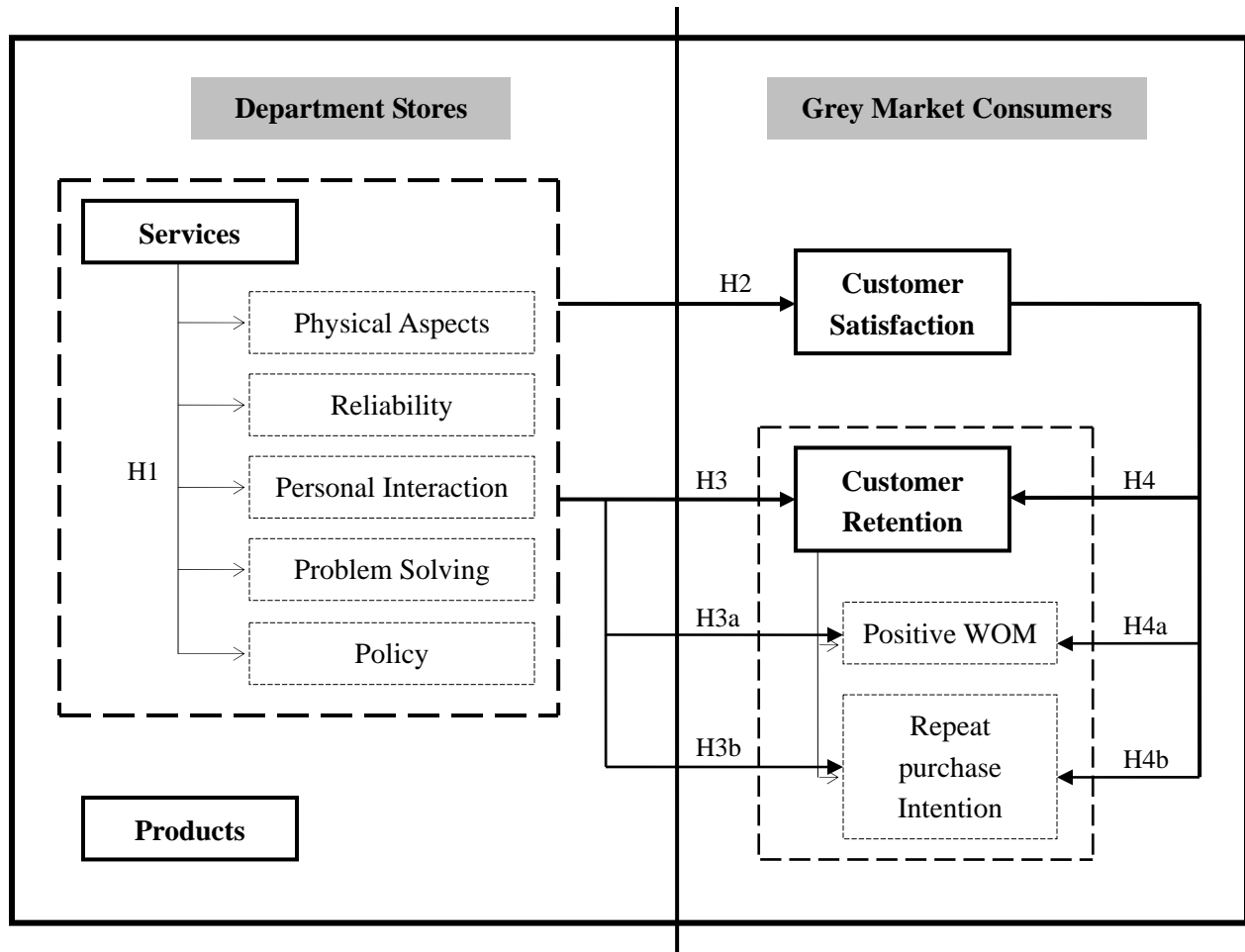


Figure 3.1 Conceptual Framework

Source: Developed on the basis of Dabdkar *et al.*, 1996; Fornell *et al.*, 1996; Lee *et al.*, 2001; Oliver, 1980; Parasuraman & Grewal, 2000; Taylor & Baker, 1994; etc.

The conceptual framework in this study mainly consisted of two sections: the first section was about grey market consumers' perceived service quality at their favorite department stores. In this section, the department stores' service was categorized into five dimensions according to the "DTR model", namely "physical aspects", "reliability", "personal interaction", "problem

solving” and “policy”. Of the five, the three service dimensions were further divided into six sub-dimensions: “appearance” and “convenience” under the “physical aspects”; “promise” and “doing things right” under the “reliability”; “inspiring confidence” and “courteousness/helpfulness” under the “personal interaction”. Those six sub-dimensions did not appear in Figure 3.1 due to space limitation (see Figure 2.3 for the dimensions and sub-dimensions in the “DTR model”). The second part included grey market consumers’ satisfaction and customer retention of those stores, with their customer retention comprising two aspects: positive WOM and repeat purchase intention. In this study, the main focus was on the relationships between grey market consumers’ perceived service quality, their satisfaction and customer retention of their favorite department stores to validate the previously announced statements that perceived service quality is the antecedent to customer satisfaction and customer retention, and customer satisfaction also impacts customer retention.

Conceptual Definitions

1. Service quality

Service quality is a customer’s judgment or assessment of an entity’s overall excellence or superiority of the service (Parasuraman *et al.*, 1988).

2. Customer satisfaction

Customer satisfaction is an emotional response to the service a customer perceives during his/her consumption experience (Day, 1984; Oliver & Swan, 1989; Westbrook & Oliver, 1991).

In a more specific way, it is defined as the outcome of the subjective evaluation of a product or

service in terms of whether that product or service has met the customer's needs and expectation (Engel *et al.*, 1990; Johnson & Fornell, 1991; Zeithaml & Bitner, 2000).

3. Customer retention

Customer retention refers to a favorable attitude towards a company in addition to purchasing its products repeatedly (Day, 1969; Dick & Basu, 1994; Jarvis & Wilcox, 1977).

4. Word of Mouth (WOM)

WOM is defined as the "Oral person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, concerning a brand, a product, or a service" (Ardnt, 1967).

5. The grey market

The grey market is the demographic segment made up of adults over fifty years old (Carrigan, 1998).

Research Hypotheses

According to Siu and Cheung (2001), the "physical aspects" dimension is the most important factor that influences consumers' overall perceived service quality. However, Semon (1995) concluded that the fifty-plus consumers are seeking reliability in their purchase experience while Shim and Mahoney (1992) pointed out that store services such as courteous treatment and assistance from the sales people, convenient parking, in-store rest areas, readable labels/tags, and ease of store layout are all important factors to grey market consumers. Therefore, the following hypothesis was developed:

- H1: There are multi-dimensions of grey market consumers' perceived service quality at their favorite department stores.

Oliver (1980) discovered the cause-and-effect relationship between consumers' perceived service quality and their satisfaction. In many subsequent studies, perceived service quality was further viewed as an antecedent to customer satisfaction (Iacobucci *et al.*, 1995; etc.) and this relationship has been validated in many different industries (Duffy & Ketchand, 1998; Fornell *et al.*, 1996; Oliver, 1993; Rust & Oliver, 1994; Taylor & Baker, 1994). Based on these conclusions, the following hypothesis was hence established:

- H2: Grey market consumers' perceived service quality at their favorite department stores is significantly related to their satisfaction of those stores.

Studies indicated that a positive relationship also exists between consumers' perceived service quality and customer retention (Boulding *et al.*, 1993; Ruyter, Wetzels & Bloemer, 1998; Taylor & Baker, 1994; Wong, Dean & White, 1999). Bennett and Higgins (1988) pointed out that service quality has an apparent relationship to customer retention and Woodside, Frey and Daly (1989) reported that a significant association exists between consumers' perceived service quality and their repeat purchase intention. Dabholkar *et al.* (1996) suggested that there is a statistical relationship between retail service quality and customer retention, which mainly consists of positive WOM and repeat purchase intention. Based on these previous conclusions, it was proposed that:

- H3: Grey market consumers' perceived service quality at their favorite department stores is significantly related to customer retention of those stores.

- H3a: Grey market consumers' perceived service quality at their favorite department stores is significantly related to their positive WOM of those stores.
- H3b: Grey market consumers' perceived service quality at their favorite department stores is significantly related to their repeat purchase intention of those stores.

Some literature indicated that higher customer satisfaction leads to greater customer retention (Anderson & Sullivan, 1993; Bearden & Teel, 1983; Bolton & Drew, 1991; Fornell, 1992; Kotler, 1997; Labarbera & Mazursky, 1983; Oliver & Swan, 1989; Yi, 1991). Kincade, Redwine and Hancock (1992) found that customers with higher satisfaction tend to be more willing to recommend the store to others and are more likely to conduct repeat purchases in the future. As states, positive WOM and repeat purchase intention are the two main parts of customer retention and Boulding *et al.* (1993) found that a positive relationship exists between customer satisfaction and both parts. Therefore I posited that:

- H4: Grey market consumers' satisfaction of their favorite department stores is significantly related to customer retention of those stores.
 - H4a: Grey market consumers' satisfaction of their favorite department stores is significantly related to their positive WOM of those stores.
 - H4b: Grey market consumers' satisfaction of their favorite department stores is significantly related to their repeat purchase intention of those stores.

CHAPTER IV

METHODOLOGY

Sample & Population

The population for this study consisted of the grey market consumers in Athens-Clarke County, Georgia. Athens is a college town located 67 miles northeast of Atlanta, Georgia. According to a 2004 census estimate, Clarke County has a population of 103,951, among whom over 30,000 are students at the University of Georgia. 19.4% of people in Clarke County are aged over fifty years old, amounting to 20,097 grey market consumers (The Georgia County Guide, 2004). A convenience sample of 232 people over fifty years old in the Athens-Clarke County area was invited to complete the structured questionnaires.

Instrument Development

In this study, a structured questionnaire was developed to collect the data pertaining to grey market consumers' perceived service quality at their favorite department stores, their satisfaction and customer retention of those stores. Most statements in the questionnaire came from previous studies identifying the retail service quality dimensions (Dabholkar *et al.*, 1996; etc.) and related researches exploring relationships between service quality, customer satisfaction and customer retention (Bloemer, *et al.*, 1999; Taylor & Baker, 1994; etc.).

The questionnaire had three sections. The first section was used to measure the respondents' frequency of purchasing clothing items in department stores and to determine their favorite department stores. This section not only screened out unqualified respondents who had never shopped in department stores for clothing items during the past year, but also acquired their favorite stores' information. Eleven department stores in Athens neighborhood and Atlanta metropolitan area were selected and listed in the questionnaire, with an "Others" option representing other unlisted department stores. Participants could select more than one favorite department store. The second section of the questionnaire consisted of 25 questions, among which 18 questions were used to determine perceived service quality in five retail service dimensions (Dabholkar *et al.*, 1996), three questions used to evaluate customer satisfaction and four questions used to estimate customer retention specifically in two dimensions: positive WOM and repeat purchase intention. A likert-type scale was used with 1 indicating "strongly disagree" and 5 indicating "strongly agree". Participants were required to evaluate their perceived service quality at their favorite department stores, as well as their satisfaction and customer retention of those stores. The third section inquired about the respondents' basic demographic characteristics such as age, gender, education and income, etc.

A pilot test was conducted with eight participants. These participants were residents of Athens-Clark County area and were over fifty years old. The purpose of this pilot test on the measurement instrument was to validate the items and scales in the questionnaire as well as to detect any wording problems that might exist in the survey instructions and questions. Eight participants were asked to answer all the questions in questionnaire and then to point out any

inappropriate wording in questions as well as any unclear statement that was hard to understand. On the basis of the results of the pilot test, the preliminary questionnaire was revised and the contents finalized (see Appendix B).

The final questionnaires were given out to 232 people, who were presumably over fifty years old. One hundred and eleven participants were contacted by one of the author's friends at a local church. Another 121 questionnaires were handed out by another friend of the author on several occasions of private parties. One hundred and twenty-six participants returned questionnaires on the same day they received them, while 79 participants finished the questionnaires later and mailed them back to the author in pre-stamped envelopes. Among the 205 questionnaires returned, 23 were discarded as unqualified, including 6 from the participants who had never been to the department store for apparel shopping in the past year, 9 from the participants who were below the required age threshold and 8 from the participants who did not finish all questions as required. Altogether, 182 qualified questionnaires were used for the data analysis.

Data Analysis

The data gathered from questionnaires were entered into a computer database and then analyzed using SPSS program. Descriptive statistics including means, standard deviations, frequencies, percentages and correlations were conducted first. These descriptive statistics were used to provide a better understanding of all variables and to profile the respondents' demographic characteristics as well. Correlation coefficients among the variables were tested to

check if a multicollinearity problem existed that would undermine the interpretation regarding the influence of independent variables on the dependent variable in the later regression analysis. To avoid the possible misinterpretation of the relationship between independent variables and dependent variable due to high correlations among some of the independent variables, exploratory factor analysis was conducted to transform the original variables into fewer factors and then use the regression analysis to test the relationship between those factors and each dependent variable. In this study, exploratory factor analysis and regression analysis were utilized to test the hypotheses developed in the study. The established significance level for rejecting all null hypotheses is 0.05.

CHAPTER V

RESULTS

Respondent Demographics

A summary of the respondents' characteristics is shown in Table 5.1. Overall, 59.34% of the respondents were females and 40.66% males. Almost 43% of the respondents had college education, 42.86% of the respondents had graduate-level degrees and 14.28% were high school graduates. Roughly half of the subjects were between the ages of 50 - 59 (46.70%), 29.12% between the ages of 60 - 69, 18.13% between the ages of 70 - 79, and 6.05% were over the age of 80. The mean age of the respondents in this study was 62. About half of the respondents (49.45%) reported annual household incomes over \$80,000, 24.72% reported household incomes between \$60,000 and \$79,000 per year, 14.84% reported household incomes between \$40,000 and \$59,000 per year, 9.34% reported household incomes between \$20,000 and \$39,000 per years, and only 1.65% reported household incomes below \$20,000 per year. Over half of the respondents (56.04%) had 2 persons in the household, 15.94% had only 1 person in the household and 10.44% had 3 persons in the household. The mean of the number of household persons was 2.45.

Table 5.1
Profile of Respondents

		Number	Percentage	Mean	S.D.	Range
Age	50 - 59	85	46.70%	62	9.60	50~86
	60 - 69	53	29.12%			
	70 - 79	33	18.13%			
	over 80	11	6.05%			
Gender	Male	74	40.66%	2.45	1.30	1~8
	Female	108	59.34%			
Race	African American	3	1.65%			
	Caucasian/White	179	98.35%			
	Hispanic	0	0.00%			
	Asian/Pacific Islander	0	0.00%			
	American Indian/Aleut	0	0.00%			
	Others	0	0.00%			
	High School	26	14.28%			
Education	College	78	42.86%			
	Graduate School	78	42.86%			
	Under 20,000	3	1.65%			
Income	20,000 - 39,000	17	9.34%			
	40,000 - 59,000	27	14.84%			
	60,000 - 79,000	45	24.72%			
	Over 80,000	90	49.45%			
Number of Household People	1	29	15.94%	2.45	1.30	1~8
	2	102	56.04%			
	3	19	10.44%			
	4	13	7.14%			
	5	13	7.14%			
	6	4	2.20%			
	7	1	0.55%			
	8	1	0.55%			

The majority of the subjects (98.35%) were Caucasian and only 3 out of 182 (1.65%) respondents were African American. In addition, there were no Hispanic, Asian or American

Indian participant in this study. According to the Georgia County Guide (2004), 68.10% of the population in Clarke County is Caucasian, 27.10% African American, and 4.80% other minorities including Asians and Hispanics. As a result of the convenience sampling technique, the demographic breakdowns of the respondents were not congruent to the actual population structure in this area.

Table 5.2 demonstrates the information of the respondents' shopping frequencies and favorite department stores. Almost 62% of the respondents in this study reported that they went to department stores to purchase clothing items "occasionally", 18.13% reported that they "often" went to the department stores to purchase clothing items, and 4.40% of the respondents went to the department stores "very often" for purchasing clothing items. Only 15.93% said they "seldom" went to department stores for clothing item purchasing. Eleven department stores were selected in this study and the respondents were asked to choose their favorite stores. 43.96% of the respondents chose "Belk" as their favorite store, 30.77% "Macy's", and 18.13% "JCPenny". None of the respondents chose "Bloomingdale's", "Lord & Taylor", or "Neiman Marcus" as their favorite store. The possible reason might be because those three department stores are far away from the Athens neighborhood. For each chosen department store in the questionnaire, location(s) in or near Athens neighborhood were listed in Appendix C.

Table 5.2
Frequency & Favorite Department Stores

		Number	Percentage
Frequency	Seldom	29	15.93%
	Occasionally	112	61.54%
	Often	33	18.13%
	Very Often	8	4.40%
Favorite Stores	Belk	80	43.96%
	Macy's	56	30.77%
	JCPenny	33	18.13%
	Kohls	18	9.89%
	Nordstrom	18	9.89%
	Sears	12	6.59%
	Others	10	5.49%
	Dillard's	9	4.94%
	Parisian	5	2.75%
	Bloomingdale's	0	0.00%
	Lord & Taylor	0	0.00%
	Neiman Marcus	0	0.00%

Preliminary Analyses

After getting the respondents' demographic information, correlation coefficients among the 18 perceived service quality items were tested to determine if a multicollinearity problem existed. Since high correlations among independent variables could cause misinterpretation of the relationship between independent variables and dependent variable, and most of the Pearson Correlation Coefficients between the 18 perceived service quality items were higher than 0.30, a factor analysis was regarded to be more appropriate for this study (Hair *et al.*, 1998).

Before conducting the factor analysis, Cronbach's alpha value was computed for the internal consistency aspect of reliability of the scales measuring the perceived service quality. The perceived service quality measure, consisting 18 items, had an alpha value of 0.92. Schuessler (1971) pointed out in his study that the scale could be considered to have good reliability if the Cronbach's alpha value is higher than 0.60. Therefore the Cronbach's alpha value in this study indicated that the perceived service quality scales were with high reliability.

An exploratory factor analysis with varimax rotation was then conducted and the factors with eigenvalues greater than 1.0 and items with rotated loadings greater than 0.50 were retained. To ensure that each item only loaded on one factor, items that did not load strongly on any factor (below 0.50) and had high cross-loadings (equal to or greater than 0.40) were dropped from the analysis (Chen & Hsu, 2001). Six items were hence eliminated from the analysis according to the above criterion. The six deleted variables were listed in Table 5.3. In addition, Communalities of each variable were calculated, which ranged from 0.49 to 0.81. Hair *et al.* (1998) indicated that the communality of a variable represents the amount of variance in the factor solution explained by that variable, variables with communalities less than 0.40 should be dropped for reason of insufficient contribution to explain the variance. However, no item was dropped because of this criterion.

Table 5.3
Deleted Variables

3	This store has clean, attractive and convenient dressing rooms, waiting areas and restrooms.
4	The store layout makes it easy for you to find what you need.
5	The store layout makes it easy for you to move around in this store.
6	This store provides the service at the time it promised you to do so.
8	This store has merchandise available when you want it.
14	This store willingly handles returns and exchanges.

The factor model was re-specified by deriving a new factor solution with the above-mentioned six items deleted. The remaining 12 items formed three factors, indicating that 68.11% of the total variance was explained by three perceived service quality dimensions. Factor 1 consisted six items, with a Cronbach's alpha coefficient of 0.90 and an eigenvalue of 5.51, explaining 45.88% of the total variance in this construct. Factor 2 consisted three items, with a Cronbach's alpha coefficient of 0.75 and an eigenvalue of 1.66, explaining 13.84% of the total variance in this construct. Factor 3 also consisted three items, with a Cronbach's alpha coefficient of 0.68 and an eigenvalue of 1.01, explaining 8.39% of the total variance in this construct.

The three factors were named based on the common characteristics of the included items (Table 5.4). Factor 1 was named *Personal Interaction*. Among of the six items in Factor 1, five items (9, 10, 11, 12, and 13) came from the "personal interaction" dimension of the "DTR model" developed by Dabholkar *et al.* (1996). Though Item 15 "Employees in this store are able

to handle customer complaints immediately” was originally categorized under the “problem solving” dimension in the “DTR model”, it somehow also related to the interaction between the customer and the employee. Thus in this study, Item 15 together with the other five items (9, 10, 11, 12, and 13) formed the factor named *Personal Interaction*, which was the service dimension that related to the interactions between the customer and the employee such as “service employees inspiring confidence and employees being courteous and helpful” as stated by Dabholkar *et al.* (1996).

Factor 2 was named *Store Image*, including two items (1 and 2) related to the store’s physical facilities and a third item (7) related to the store’s non-physical image such as “no mistake in previous transactions”. In the “DTR model”, physical “appearance” and “convenience” were the two sub-dimensions that form the service dimension “physical aspects”. However, Item 3 related to physical “appearance” and Items 4 with Item 5 representing “convenience” were deleted in this study because of the high cross-loadings, while Item 7 originally under the dimension “reliability” in the “DTR model” was regrouped together with Items 1 and Item 2 under the new factor named *Store Image*, which included both physical image such as store facilities (Item 1), physical materials (Item 2), and non-physical image (Item 7) such as “no mistake in previous transactions”.

Factor 3 was named *Convenience*. Though in the “DTR model” this factor was named as “policy” because researchers believed that most statements included the aspects of service quality that were directly influenced by the store policy (Dabholkar *et al.*, 1996), three items (16, 17, and 18) in this factor were actually also about whether the department store brought its

customers convenience such as convenient parking, convenient operating hours, and availability of the store-issued credit card with discount. Thus, it could be more appropriate to be perceived by the consumers as *Convenience* rather than “policy”.

Table 5.5 shows the mean values and standard deviations for the three service quality factors as well as the 12 items of perceived service quality that were retained in the factor structure. Those 12 variables (items) were measured on a 5-point scale ranging from 1 indicating “strongly disagree” to 5 indicating “strongly agree”. According to the factor analysis solution, perceived service quality was formed with three factors. The mean values and standard deviations for the three service quality factors were measured on the basis of the mean values of the items included in each factor. The first factor, including six items, was named *Personal Interaction*; the second factor was named *Store Image*, which included three items; and the third factor also included three items with the name of *Convenience*. The factor *Convenience* got the highest mean value (3.95), while *Personal Interaction* had the lowest mean value of 3.57, with *Store Image* in between (3.82). This result indicated that when grey market consumers shopped at their favorite stores, they perceived that those stores have provided relatively more sufficient service related to *Convenience*. However, they regarded that stores service related to *Personal Interaction* was relatively insufficient and needed further improvement.

Table 5.4
Factor Analysis Results: Perceived Service Quality Dimensions

Factor	No.	Statement	Eigen Value	Factor loading	Variance Explained (%)	Cronbach Alpha
Factor 1: <i>Personal Interaction</i>	9	Employees in this store have the knowledge to answer your questions.	5.51	0.83	45.88%	0.90
	10	Employees in this store make you feel confident and happy.		0.73		
	11	Employees in this store are never too busy to respond to your requests.		0.88		
	12	Employees in this store are consistently courteous with you either in the store or on the telephone.		0.76		
	13	This store gives you individual attention and help.		0.81		
	15	Employees in this store are able to handle customer complaints immediately.		0.65		
Factor 2: <i>Store Image</i>	1	The physical facilities at this store are visually appealing.	1.66	0.82	13.84%	0.75
	2	Materials associated with store service such as shopping bags and catalogs are visually appealing.		0.77		
	7	This store never makes mistakes in your previous transactions.		0.74		
Factor 3: <i>Convenience</i>	16	This store provides plenty of convenience parking for customers.	1.01	0.69	8.39%	0.68
	17	This store has operating hours convenient to all customers.		0.82		
	18	This store issues credit card and you can enjoy discount with this store's credit card.		0.7		

Table 5.5
Means and Standard Deviations for Perceived Service Quality Constructs

Factor	No.	Statement	Mean	S.D.
Factor 1		<i>Personal Interaction</i>	3.57	0.23
	9	Employees in this store have the knowledge to answer your questions.	3.68	0.87
	10	Employees in this store make you feel confident and happy.	3.48	0.88
Factor 1: <i>Personal Interaction</i>	11	Employees in this store are never too busy to respond to your requests.	3.40	0.93
	12	Employees in this store are consistently courteous with you either in the store or on the telephone.	4.00	0.84
	13	This store gives you individual attention and help.	3.44	0.97
	15	Employees in this store are able to handle customer complaints immediately.	3.42	0.65
Factor 2		<i>Store Image</i>	3.82	0.36
	1	The physical facilities at this store are visually appealing.	3.84	0.78
Factor 2: <i>Store Image</i>	2	Materials associated with store service such as shopping bags and catalogs are visually appealing.	3.45	0.97
	7	This store never makes mistakes in your previous transactions.	4.16	0.90
Factor 3		<i>Convenience</i>	3.95	0.30
	16	This store provides plenty of convenience parking for customers.	4.15	0.68
Factor 3: <i>Convenience</i>	17	This store has operating hours convenient to all customers.	4.09	0.59
	18	This store issues credit card and you can enjoy discount with this store's credit card.	3.61	1.02

Table 5.6 shows the Pearson Correlations among all variables that were used for hypothesis testing, including the three service quality factors (*Personal Interaction*, *Store Image*, and *Convenience*), customer satisfaction, and customer retention with its two sub-aspects: positive

WOM and repeat purchase intention. As shown in this table, each service quality factor was significantly correlated to customer satisfaction, customer retention and its two sub-aspects: positive WOM and repeat purchase intention. In addition, customer satisfaction, customer retention, positive WOM and repeat purchase intention were also significantly correlated with each other. Given the fact that the three service quality factors were created through exploratory factor analysis and they were not correlated with each other, it has effectively eliminated the multicollinearity problem.

Table 5.6
Pearson Correlations Analysis for Variables

	Customer satisfaction	Repeat purchase intention	Positive WOM	Customer retention	<i>Personal Interaction</i>	<i>Store Image</i>	<i>Convenience</i>
Customer satisfaction	---	.67(***)	.89(***)	.86(***)	.56(***)	.37(***)	.41(***)
Repeat purchase intention		---	.67(***)	.90(***)	.37(***)	.38(***)	.32(***)
Positive WOM			---	.93(***)	.55(***)	.31(***)	.31(***)
Customer retention				---	.51(***)	.38(***)	.34(***)
<i>Personal Interaction</i>					---	.00	.00
<i>Store Image</i>						---	.00
<i>Convenience</i>							---

*p < 0.05 **p < 0.01 ***p < 0.001

Hypotheses Testing

The hypotheses testing was based on the responses of the 182 participants who were over fifty years old in Athens-Clarke County and who had clothing shopping experiences at department stores during the past year. An exploratory factor analysis and a series of regression analyses were conducted to test the hypotheses hereinafter at the designated significance level ($\alpha = 0.05$).

- ***H1: There are multi-dimensions of grey market consumers' perceived service quality at their favorite department stores.***

Hypothesis 1 concerned the service quality dimensions perceived by grey market consumers at their favorite department stores. The “DTR model” was used to build the service quality section of conceptual framework in this study and most items in the questionnaire were also borrowed from the “DTR model”. According to previous studies (Semon, 1995; Shim & Mahoney, 1992), grey market consumer's perceived service quality should be based on a multi-dimensional pattern, yet difference might exist between the grey market consumer's perceived service quality structure and the originally proposed “DTR model”, which was not specifically focused on the grey market.

Exploratory factor analysis with varimax rotation was conducted to identify the key service quality dimensions perceived by grey market consumers. Three factors with eigenvalues greater than 1.0 and 12 items with significant loadings (i.e., loadings greater than 0.5 and cross-loadings less than 0.4) on one of the three factors were retained in the factor structure, explaining 68.11%

of the total variance of grey market consumers' perceived service quality at their favorite department stores. The three factors were named as *Personal Interaction*, *Store Image*, and *Convenience* (see Table 5.4 *Factor Analysis Results: Perceived Service Quality Dimensions in Preliminary Analyses*). Hence, hypothesis 1 was supported.

Starting from Hypothesis 2, regression analyses were conducted to testify hypotheses. Table 5.7 explains the relationships between independent variables and dependent variables in each hypothesis.

Table 5.7
Variables in Multiple Regression Analysis for Hypotheses Testing

Hypothesis	Independent Variable	Dependent Variable
Hypothesis 2	Three perceived service quality factors ^a	Customer Satisfaction ^b
Hypothesis 3	Three perceived service quality factors ^a	Customer Retention ^c
Hypothesis 3a	Three perceived service quality factors ^a	Positive WOM ^d
Hypothesis 3b	Three perceived service quality factors ^a	Repeat Purchase Intention ^e
Hypothesis 4	Customer Satisfaction ^b	Customer Retention ^c
Hypothesis 4a	Customer Satisfaction ^b	Positive WOM ^d
Hypothesis 4b	Customer Satisfaction ^b	Repeat Purchase Intention ^e

^a Three perceived service quality factors are *Personal Interaction*, *Store Image*, *Convenience*

^b Customer Satisfaction equates to the sum of the three items (Items 19, 20, and 21)

^c Customer Retention equates to the sum of the four items (Items 22, 23, 24, and 25)

^d Positive WOM equates to the sum of two items (Items 22 and 23)

^e Repeat Purchase Intention equals to the sum of two items (Items 24 and 25)

- ***H2: Grey market consumers' perceived service quality at their favorite department stores is significantly related to their satisfaction of those stores.***

Hypothesis 2 concerned the relationship between grey market consumers' perceived service quality at their favorite department stores and their satisfaction of those stores. In many previous studies (Oliver, 1980; Iacobucci *et al.*, 1995; etc.), perceived service quality was viewed as an antecedent to customer satisfaction.

Multiple regression analysis was conducted to examine the relationship between grey market consumers' perceived service quality and their satisfaction in the department store settings. In this analysis, the independent variables were the three perceived service quality factors, and the dependent variable was grey market consumers' satisfaction, which equated to the sum of the scores of the three questions (Items 19, 20, and 21) related to customer satisfaction.

Table 5.8 reports the regression analysis results for the relationship between grey market consumers' perceived service quality at department stores and their satisfaction of those stores. The multiple regression analysis indicated that 62% of the variance in grey market consumers' satisfaction was explained by the three perceived service quality factors: *Personal Interaction*, *Store Image*, and *Convenience* ($R^2 = 0.62$). The regression model was significant in explaining grey market consumers' satisfaction of department stores, with $F(3, 181) = 95.43$ and $P < 0.0001$. The test of the relative contributions of independent variables to explain grey market consumers' satisfaction showed that *Personal Interaction* (Factor 1) was the strongest indicator of grey market consumers' satisfaction, with a standardized coefficient of 0.56, while *Convenience*

(Factor 3) was the second strongest indicator of grey market consumers' satisfaction with a standardized coefficient of 0.41 and *Store Image* (Factor 2) was the relatively weaker predictor of the dependent variable, with a standardized coefficient of 0.37. T-values for the three factors were significant at a 0.001 level, which indicated that the three factors of grey market consumers' perceived service quality were positively related to their satisfaction. Thus Hypothesis 2 was supported.

Table 5.8
Multiple Regression Analysis Results for Hypothesis 2

Dependent Variable: Customer Satisfaction				
Independent Variables: Personal Interaction, Store Image, Convenience				
Analysis of Variance: F (3, 181) = 95.43, P < 0.0001				
R-Square: 0.62				
Variables	DF	Parameter Estimate	Standardized Estimate	t-value
Intercept	1	12.13	0	121.48***
Personal Interaction	1	1.21	0.56	12.04***
Store Image	1	0.80	0.37	8.02***
Convenience	1	0.88	0.41	8.78***

*p < 0.05 **p < 0.01 ***p < 0.001

- ***H3: Grey market consumers' perceived service quality at their favorite department stores is significantly related to customer retention of those stores.***
 - ***H3a: Grey market consumers' perceived service quality at their favorite department stores is significantly related to their positive WOM of those stores.***

- ***H3b: Grey market consumers' perceived service quality at their favorite department stores is significantly related to their repeat purchase intention of those stores.***

Hypothesis 3 concerned the relationship between grey market consumers' perceived service quality at their favorite department stores and customer retention of those stores, which was further specified in two dimensions: positive WOM (Hypothesis 3a) and repeat purchase intention (Hypothesis 3b). Many studies indicated a significant relationship between service quality and customer retention (Boulding *et al.*, 1993; Ruyter *et al.*, 1998; Taylor & Baker, 1994; Wong *et al.*, 1999). Dabholkar *et al.* (1996) suggested that there was a statistical relationship between retail service quality and customer retention, which mainly consisted of both positive WOM and repeat purchase intention.

Multiple regression analysis was conducted to examine the relationship between grey market consumers' perceived service quality at department stores and customer retention of those stores. In this analysis, the independent variables were the three perceived service quality factors, and the dependent variable was grey market consumers' customer retention, which equated to the sum of the scores of the four questions (Items 22, 23, 24, and 25) related to customer retention.

Table 5.9 reports the regression analysis results for the relationship between grey market consumers' perceived service quality at department stores and customer retention of those stores. The multiple regression analysis indicated that 52% of the variance in grey market consumers' customer retention was explained by the three perceived service quality factors: *Personal Interaction*, *Store Image*, and *Convenience* ($R^2 = 0.52$). The regression model was significant in explaining grey market consumers' customer retention of department stores, with $F(3, 181) =$

62.99 and $P < 0.0001$. The test of the relative contributions of the independent variables to explain grey market consumers' customer retention showed that *Personal Interaction* (Factor 1) was still the strongest predictor of customer retention, with the highest standardized coefficient of 0.51, while *Store Image* (Factor 2) had a standardized coefficient of 0.38 and *Convenience* (Factor 3) had a standardized coefficient of 0.34. T-values for the three factors were significant at a 0.001 level, which indicated that the three factors of grey market consumers' perceived service quality were positively related to their customer retention. Thus Hypothesis 3 was supported.

Table 5.9
Multiple Regression Analysis Results for Hypothesis 3

Dependent Variable: Customer Retention				
Independent Variables: Personal Interaction, Store Image, Convenience				
Analysis of Variance: $F(3, 181) = 62.99$, $P < 0.0001$				
R-Square: 0.52				
Variables	DF	Parameter Estimate	Standardized Estimate	t-value
Intercept	1	15.72	0	106.88***
Personal Interaction	1	1.45	0.51	9.73***
Store Image	1	1.07	0.38	7.19***
Convenience	1	0.97	0.34	6.53***

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Multiple regression analysis was further conducted to examine the relationship between grey market consumers' perceived service quality at their favorite department stores and their positive WOM of those stores. In this analysis, the independent variables were the three

perceived service quality factors, and the dependent variable was grey market consumers' positive WOM, which equated to the sum of the scores of the two questions (Items 22 and 23) related to positive WOM.

Table 5.10 reports the regression analysis results for the relationship between grey market consumers' perceived service quality at department stores and their positive WOM of those stores. The multiple regression analysis showed that 49% of the variance in grey market consumers' positive WOM of department stores was explained by their three perceived service quality factors: *Personal Interaction*, *Store Image*, and *Convenience* ($R^2 = 0.49$). The regression model was significant in explaining grey market consumers' positive WOM of department stores, with $F(3, 181) = 57.04$ and $P < 0.0001$. The test of the relative contributions of the independent variables explaining grey market consumers' positive WOM showed that *Personal Interaction* (Factor 1) was still the strongest predictor to consumers' positive WOM of department stores, with a standardized coefficient of 0.55, while *Store Image* (Factor 2) and *Convenience* (Factor 3) had the same standardized coefficient of 0.31. T-values for the three factors were significant at a 0.001 level, which indicated that the three factors of grey market consumers' perceived service quality at department stores were positively related to their positive WOM of those stores. Thus, Hypothesis 3a was supported.

Table 5.10
Multiple Regression Analysis Results for Hypothesis 3a

Dependent Variable: Positive WOM				
Independent Variables: Personal Interaction, Store Image, Convenience				
Analysis of Variance: F (3, 181) = 57.04, P < 0.0001				
R-Square: 0.49				
Variables	DF	Parameter Estimate	Standardized Estimate	t-value
Intercept	1	8.01	0	90.34***
Personal Interaction	1	0.91	0.55	10.21***
Store Image	1	0.52	0.31	5.81***
Convenience	1	0.51	0.31	5.75***

*p < 0.05 **p < 0.01 ***p < 0.001

Another multiple regression analysis was conducted to examine the relationship between grey market consumers' perceived service quality at their favorite department stores and their repeat purchase intention of those stores. In this analysis, the independent variables were the three perceived service quality factors, and the dependent variable was grey market consumers' repeat purchase intention of department stores, which equated to the sum of the scores of the two questions (Items 24 and 25) related to consumers' repeat purchase intention.

Table 5.11 reports the regression analysis results for the relationship between grey market consumers' perceived service quality at department stores and their repeat purchase intention of those stores. The multiple regression analysis reported that 38% of the variance in grey market consumers' repeat purchase intention of department stores was explained by the three perceived service quality factors: *Personal Interaction*, *Store Image*, and *Convenience* ($R^2 = 0.38$). The regression model was significant in explaining grey market consumers' repeat purchase intention

of department stores, with $F(3, 181) = 36.74$ and $P < 0.0001$. The test of the relative contributions of the independent variables to explain grey market consumers' repeat purchase intention showed that *Personal Interaction* (Factor 1) had a standardized coefficient of 0.37, which was similar to the *Store Image's* (Factor 2) standardized coefficient (0.38), and *Convenience* (Factor 3) had a standardized coefficient of 0.32. T-values for the three factors were significant at a 0.001 level, which indicated that the three factors of grey market consumers' perceived service quality at their favorite department stores were indeed related to their repeat purchase intention of those stores. Thus, Hypothesis 3b was supported.

Table 5.11
Multiple Regression Analysis Results for Hypothesis 3b

Dependent Variable: Repeat Purchase Intention				
Independent Variables: Personal Interaction, Store Image, Convenience				
Analysis of Variance: $F(3, 181) = 36.74$, $P < 0.0001$				
R-Square: 0.38				
Variables	DF	Parameter Estimate	Standardized Estimate	t-value
Intercept	1	7.71	0	90.50***
Personal Interaction	1	0.54	0.37	6.30***
Store Image	1	0.55	0.38	6.46***
Convenience	1	0.46	0.32	5.38***

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

- *H4: Grey market consumers' satisfaction of their favorite department stores is significantly related to customer retention of those stores.*
- *H4a: Grey market consumers' satisfaction of their favorite department stores is significantly related to their positive WOM of those stores.*
- *H4b: Grey market consumers' satisfaction of their favorite department stores is significantly related to their repeat purchase intention of those stores.*

Hypothesis 4 concerned the relationship between grey market consumers' satisfaction of their favorite department stores and customer retention of those stores. Hypothesis 4a and Hypothesis 4b concerned the relationships between grey market consumers' satisfaction of department stores and the two aspects of customer retention: their positive WOM and repeat purchase intention. Higher customer satisfaction leads to greater customer retention (Anderson & Sullivan, 1993; Bearden & Teel, 1983; etc.). As explained earlier, positive WOM and repeat purchase intention were the two main elements of customer retention. Boulding *et al.* (1993) found that a positive relationship existed between customer satisfaction and both elements of customer retention.

Regression analysis was conducted to examine the relationship between grey market consumers' satisfaction of their favorite department stores and customer retention of those stores. In this analysis, the independent variable was grey market consumers' satisfaction of department stores, and the dependent variable was customer retention of those stores. Table 5.12 reports the regression analysis results for the relationship between grey market consumers' satisfaction and customer retention. The regression analysis showed that 75% of the variance in grey market

consumers' customer retention of department stores was explained by their satisfaction ($R^2 = 0.75$) of those stores. The regression model was significant in explaining grey market consumers' customer retention of department stores, with $F(1, 181) = 526.13$ and $P < 0.0001$. The test of the relative contribution of the customer satisfaction to explain grey market consumers' customer retention showed that the independent variable had a standardized coefficient of 0.86, which meant one unit increase in customer satisfaction of department stores could result in 0.86 unit increase in customer retention of those stores. T-value for the independent variable was significant at a 0.001 level, which indicated that grey market consumers' satisfaction was positively related to customer retention. Therefore, Hypothesis 4 was supported.

Table 5.12
Regression Analysis Results for Hypothesis 4

Dependent Variable: Customer Retention Independent Variable: Customer Satisfaction Analysis of Variance: $F(1, 181) = 526.13$, $P < 0.0001$ R-Square: 0.75			
Variables	Parameter Estimate	Standardized Estimate	t-value
Intercept	1.91	0	3.12**
Customer Satisfaction	1.14	0.86	22.94***

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

A second regression analysis was conducted to examine the relationship between grey market consumers' satisfaction of their favorite department stores and their positive WOM of

those stores. In this analysis, the independent variable was grey market consumers' satisfaction, and the dependent variable was their positive WOM of the store. Table 5.13 reports the regression analysis results for the relationship between grey market consumers' satisfaction and their positive WOM. The regression analysis showed that 79% of the variance in grey market consumers' positive WOM of department stores was explained by their satisfaction ($R^2 = 0.79$) of those stores. The regression model was significant in explaining grey market consumers' positive WOM of department stores, with $F(1, 181) = 693.76$ and $P < 0.0001$. The test of the relative contribution of the customer satisfaction to explain grey market consumers' positive WOM showed that the independent variable had a standardized coefficient of 0.89, which meant one unit increase in customer satisfaction at department stores could result in 0.89 unit increase in their positive WOM of those stores. T-value for the independent variable was significant at a 0.001 level, which indicated that grey market consumers' satisfaction at their favorite department stores was positively related to their positive WOM of those stores. Therefore, Hypothesis 4a was supported.

Table 5.13
Regression Analysis Results for Hypothesis 4a

Dependent Variable: Positive WOM			
Independent Variable: Customer Satisfaction			
Analysis of Variance: F (1, 181) = 693.78, P < 0.0001			
R-Square: 0.79			
Variables	Parameter Estimate	Standardized Estimate	t-value
Intercept	-0.32	0	-0.97
Customer Satisfaction	0.69	0.89	26.34***
*p < 0.05 **p < 0.01 ***p < 0.001			

Regression analysis was also conducted to examine the relationship between grey market consumers' satisfaction of department stores and their repeat purchase intention of those stores. In this analysis, the independent variable was grey market consumers' satisfaction of their favorite department stores, and the dependent variable was their repeat purchase intention of those stores. Table 5.14 reports the regression analysis results for the relationship between grey market consumers' satisfaction and their repeat purchase intention. The regression analysis showed that 45% of the variance in grey market consumers' repeat purchase intention of department stores was explained by their satisfaction ($R^2 = 0.45$) of those stores. The regression model was significant in explaining grey market consumers' repeat purchase intention of department stores, with $F(1, 181) = 149.62$ and $P < 0.0001$. The test of the relative contribution of the customer satisfaction to explain grey market consumers' repeat purchase intention showed that the independent variable had a standardized coefficient of 0.67, which meant one unit increase in customer satisfaction of department stores could result in 0.67 unit increase in their

repeat purchase intention of those stores. T-value for the independent variable was significant at a 0.001 level, which indicated that grey market consumers' satisfaction was positively related to their repeat purchase intention. Therefore, Hypothesis 4b was supported.

Table 5.14
Regression Analysis Results for Hypothesis 4b

Dependent Variable: Repeat Purchase Intention Independent Variable: Customer Satisfaction Analysis of Variance: $F(1, 181) = 149.62, P < 0.0001$ R-Square: 0.45			
Variables	Parameter Estimate	Standardized Estimate	t-value
Intercept	2.22	0	4.86***
Customer Satisfaction	0.45	0.67	13.23***

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

CHAPTER VI

CONCLUSIONS

Conclusions and Implications

The 18 perceived service quality items analyzed in the survey for this study were adopted from the “DTR model”, which identified five determining dimensions of the consumer’s perceived service quality. However, according to the exploratory factor analysis in this study, only three dimensions have been determined to represent grey market consumers’ perceived service quality at their favorite department stores, namely *Personal Interaction*, *Store Image*, and *Convenience*. The original dimensions of “physical aspects” and “reliability” in the “DTR model” were mixed together to form a new dimension named *Store Image*; in addition, the dimensions “problem solving” and “personal interaction” were combined together and named as *Personal Interaction*. The dimension “policy” was renamed as *Convenience* in this study.

The result indicated that grey market consumers perceived the service quality in a different way from general consumers at department stores. In particular, *Personal Interaction* emerged as the key dimension of grey market consumers’ perceived service quality at their favorite department stores, representing 45.88% of the total variance of their perceived service quality. This result reflected the previous conclusion that elderly consumers paid more attention to services including courteous treatment and assistance from sales people (Carrigan, 1998). This finding is intuitively understandable because grey market consumers over the age of fifty tend to

have a greater demand for entrance/exit assistance and more individualized assistance from sales people in locating items and explaining details and functions of different products during their shopping trips.

Store Image, including both physical aspects and non-physical aspects, was the second dimension defining grey market consumers' perceived service quality, representing 13.84% of the total variance of the perceived service quality at their favorite department stores. Compared to younger customers, grey market customers usually exhibit more stable and long-lasting loyalty toward a particular store once they determine that it is the right store for them (Semon, 1995). Since *Store Image* is one of the crucial elements in establishing store loyalty, department stores need to convey a refined, trustworthy and reliable store image to grey market consumers to improve their perception of service quality.

Convenience, representing 8.39% of the total variance of the perceived service quality, was the third dimension determining service quality perceived by grey market consumers at department stores. This result is consistent with the previous conclusion (Shim & Mahoney, 1992) that services, including convenient parking, are important for grey market consumers. It is intuitive to understand why *Convenience* is important to determine perceived service quality of grey market customers. Grey market customers' ages dictate that they may wish to have more parking lots closer to the store gates specifically for the disabled or senior citizens. Shim and Mahoney (1992) also mentioned that services like in-store rest area, ease of store layout are important for grey market consumers, however, in this study items representing easy-to-recognize direction signs within the store and well-designed layouts without causing

them to get lost in the maze-like aisles, which should be important to grey market consumers, were not included in the results. It might be because statements in the questionnaire representing those services were not clear or specified enough for respondents.

A significant positive relationship was found between grey market consumers' perceived service quality at their favorite department stores and their satisfaction of those stores. However, a difference in this relationship was also noticed between grey market consumers and general consumers. According to Siu and Chow (2003), "personal interaction" and "physical aspects" were the two most important dimensions in determining customer satisfaction. In addition, Wong and Sohal (2003) concluded that in department stores, "physical aspects" was the most significant predictor of customer satisfaction. In this study, "physical aspects" lost priority in deciding customer satisfaction as results showed *Personal Interaction* as the most important predictor for customer satisfaction with *Convenience* being the second most important factor. *Store image*, which included the store's physical aspects, became the least important predictor for customer satisfaction. Grey market consumers will think highly of the department stores where the services provided by sales people and store staff are deemed superior to competitors.

Similarly, a significant positive relationship existed between grey market consumers' perceived service quality at their favorite department stores and customer retention of those stores. In addition, differences in this relationship have also been found between grey market consumers and general consumers. Wong and Sohal (2003) concluded that "physical aspects" was the most significant predictor of customer retention. Siu and Cheung (2001) came to the conclusion that among the service dimensions, "policy" was salient on consumers' repeat

purchase intention while “physical aspects” was important to their positive WOM. Nevertheless, in this study, *Personal Interaction*, instead of “physical aspects”, was identified as the most significant factor for promoting both customer retention and positive WOM among grey market consumers. In addition, *Store Image*, instead of “policy”, appeared as the most significant dimension for grey market consumers’ repeat purchase intention, while *Personal Interaction* was the second most important factor. *Convenience* (categorized as “policy” in the previous study) turned out to be the least important determinant of their repeat purchase intention. The lesson that the department store executives can draw from this finding is that, grey market consumers, who believe that they have received superior services and more personal attention in a particular store would be more willing to recommend said store to other consumers; and a refined and consistent store image such as appealing physical facilities and positive past shopping experience can remarkably increase grey market consumers’ repeat purchase intention.

The results also showed that a significant positive relationship existed between grey market consumers’ satisfaction and their customer retention of their favorite department stores, which was consistent with the findings of previous studies stating that customer satisfaction was an important determinant of customer retention, positive WOM, and repeat purchase intention (Anderson & Fornell, 1994, etc).

This study concluded that *Personal Interaction* was the key service quality factor perceived by the grey market that could greatly contribute to the maximization of customer satisfaction and ultimately achieve more effective customer retention and positive WOM among the grey market. *Store Image* was the most important service quality dimension to generate grey market

consumers' repeat purchase intention. In addition, *Personal Interaction* was also as the second important factor to generate grey market consumers' repeat purchase intention. These findings could provide fundamental guidelines to department store executives and managers who attempt to resurrect or improve department store business. This is especially critical given that, as was pointed out by Moin (1997), department stores have been widely criticized for substandard service and inconvenience to shoppers. To increase their competitiveness, department stores may consider providing more personal assistance specifically to grey market consumers with services such as ushering, locating items, explaining functions and uses of products, and carrying heavy product for them, among others. In addition, hiring more mid-aged in-store employees who might better understand grey market consumers could also help department stores attract more grey market consumers.

This study also concluded that the three service quality factors, representing 68.11% of the total variance of the service quality perceived by grey market consumers at their favorite department stores, could explain 62% of the total variance of their satisfaction, 52% of the total variance of customer retention and 49% of the total variance of their positive WOM. However, those three factors only explained 38% of the total variance of grey market consumers' repeat purchase intention of their favorite department stores. Therefore, other service quality factors might exist and have significant impact on grey market consumers' customer retention, especially on their repeat purchase intention. Grey market consumers' satisfaction explained 75% of the total variance of customer retention and 79% of the total variance of their positive WOM, but only 45% of the total variance of the repeat purchase intention was explained by their

customer satisfaction. These results showed that the more satisfied grey market consumers were more willing to recommend the store to other consumers. In addition, the more satisfied grey market consumers are also more willing to come back to the same store for shopping in the future. However, there might be some other factors that can also have an important influence on their repeat purchase intention that are neither perceived service quality-related or customer satisfaction-related. This could be a potential topic to be explored in the future studies.

Limitation and Future Study

Several limitations in this study along with their potential impacts on the results must be considered:

1. Since the present study was conducted in the small university town in Athens, Georgia, the results did not necessarily reflect the situation in other cities across the United States.

2. The convenience sample was not representative of the demographic structure in the population from which it was drawn. Most participants (98.35%) were white; almost half of the participants (49.45%) had household income over \$80,000; and 85.72% participants had a college or graduate school education.

3. This study did not investigate differences that might exist with respect to perceived service quality, customer satisfaction and customer retention among the demographic subgroups that were all qualified for the grey market definition. For example, subjects with different demographic characteristics such as age range, gender and income level might have different perceived service quality, customer satisfaction and customer retention.

4. This study developed three dimensions of the grey market's perceived service quality, using 12 out of the original 18 service quality items in the final analysis. As a result, these three factors probably did not include some of the existing service quality items that some grey market customers care about and that might also have important effects on their satisfaction and customer retention.

Based on the above-mentioned limitations, several suggestions for future study were made hereinafter.

First, comprehensive studies covering major cities across the United States may be needed to establish appropriate comparisons. It may be helpful for department store management to receive information on how grey market consumers perceive service quality in their respective cities.

Secondly, future research could also be expanded to include consumer's perceived service quality of different age ranges, genders, races, and education levels or household income levels within the grey market segment.

Thirdly, a refined questionnaire with more clear and specific statements could help to more accurately capture all the important dimensions relating to grey market consumers' perceived service quality. Future research could be conducted by combining qualitative and quantitative methods, incorporating interviews with grey market consumers and developing a questionnaire based on results of such interviews.

Summary

The focus of this study was to identify the key dimensions of service quality as perceived by grey market consumers at their favorite department stores. In addition, the relationship between grey market consumers' perceived service quality at their favorite department stores, their satisfaction and customer retention of those stores were also examined.

Chapter I presented a background of today's competitive retail market in the US and the importance of customer satisfaction, customer retention and service quality for the success of today's retail businesses. The fact that grey market consumers were neglected by both researchers and retailers for long was addressed and the research objectives were then stated.

Chapter II included a review of literature pertinent to service quality, customer satisfaction, customer retention, and the grey market. Several models of service quality were discussed and the "DTR model" was introduced as the potential instrument for identifying grey market consumers' perceived service quality at their favorite department stores. The importance of the grey market was also discussed.

Chapter III described the conceptual framework developed in the study, which was used to demonstrate the relationships between perceived service quality, customer satisfaction and customer retention. In addition, conceptual definitions were stated and hypotheses developed to address the research problems.

Chapter IV reported the sample and population used in the study. The instrument used was described as well as the statistical methods used for data analysis.

Chapter V presented the results of the study. Participant demographics were discussed along with a description of the preliminary analysis (factor analysis) conducted to identify the dimensions of grey market consumers' perceived service quality. The hypotheses were then tested based on the results of the factor analysis and regression analyses.

Chapter VI provided the conclusion for the study and addressed the implications. In addition, limitation and suggestions for future study were discussed.

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APPENDICES

APPENDIX A

HUMAN SUBJECTS APPROVAL



Office of The Vice President for Research
DHHS Assurance ID No. : FWA00003901

Institutional Review Board
Human Subjects Office
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APPROVAL FORM

Date Proposal Received: 2006-04-24

Project Number: 2006-10744-0

Name	Title	Dept/Phone	Address	Email
Ms. Yan Lu	PI	Textiles, Merchandising, and Interiors 304 Dawson Hall	113 College Station Road Apt. L101 Athens, GA 30605 706-254-9330	yanlu@uga.edu
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Title of Study: Analysis of Service Quality for Customer Satisfaction and Customer Retention -- An Empirical Study on the Grey Market

45 CFR 46 Category: Administrative 2
Parameters:
Waiver of Signed Consent 46.117 (c) (2);

Change(s) Required for Approval and Date Completed:
Revised Consent Document(s);

Approved : 2006-05-04 Begin date : 2006-05-04 Expiration date : 2011-05-03

NOTE: Any research conducted before the approval date or after the end data collection date shown above is not covered by IRB approval, and cannot be retroactively approved.

Number Assigned by Sponsored Programs:

Funding Agency:

Form 310 Provided: No

Your human subjects study has been approved.

Please be aware that it is your responsibility to inform the IRB:

- ... of any adverse events or unanticipated risks to the subjects or others within 24 to 72 hours;
- ... of any significant changes or additions to your study and obtain approval of them before they are put into effect;
- ... that you need to extend the approval period beyond the expiration date shown above;
- ... that you have completed your data collection as approved, within the approval period shown above, so that your file may be closed.

For additional information regarding your responsibilities as an investigator refer to the IRB Guidelines.
Use the attached Researcher Request Form for requesting renewals, changes, or closures.
Keep this original approval form for your records.

Chairperson, Institutional Review Board

APPENDIX B

QUESTIONNAIRE

The questionnaire is used solely for academic research purposes and any information you provided shall remain anonymous and not be used for any other purposes nor be disclosed to a third party.

Please DO NOT write your name on the questionnaire.

SECTION 1

1. How many times did you go to department stores to purchase clothing items in the past year?

- ☐ Never
☐ Seldom
☐ Occasionally
☐ Often
☐ Very often

2. Do you have favorite department store(s) that you especially like to visit to purchase clothing items? If yes, please choose the store name:

- ☐ YES ☐ NO

☐ Nordstrom
☐ Neiman Marcus
☐ Bloomingdale's
☐ Macy*s
☐ JCPenney
☐ Lord & Taylor
☐ Parisian
☐ Dillard's
☐ Sears
☐ Kohls
☐ Belk
☐ Others (please specify) _____

SECTION 2

Please answer the following questions regarding the department store you selected in the question 2.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
1. The physical facilities at this store are visually appealing.	1	2	3	4	5
2. Materials associated with store service such as shopping bags and catalogs are visually appealing.	1	2	3	4	5

- | | | | | | |
|--|---|---|---|---|---|
| 3. This store has clean, attractive and convenient dressing rooms, waiting areas and restrooms. | 1 | 2 | 3 | 4 | 5 |
| 4. The store layout makes it easy for you to find what you need. | 1 | 2 | 3 | 4 | 5 |
| 5. The store layout makes it easy for you to move around in this store. | 1 | 2 | 3 | 4 | 5 |
| 6. This store provides the service at the time it promised you to do so. | 1 | 2 | 3 | 4 | 5 |
| 7. This store never makes mistakes in your previous transactions. | 1 | 2 | 3 | 4 | 5 |
| 8. This store has merchandise available when you want it. | 1 | 2 | 3 | 4 | 5 |
| 9. Employees in this store have the knowledge to answer your questions. | 1 | 2 | 3 | 4 | 5 |
| 10. Employees in this store make you feel confident and happy. | 1 | 2 | 3 | 4 | 5 |
| 11. Employees in this store are never too busy to respond to your requests. | 1 | 2 | 3 | 4 | 5 |
| 12. Employees in this store are consistently courteous with you either in the store or on the telephone. | 1 | 2 | 3 | 4 | 5 |
| 13. This store gives you individual attention and help. | 1 | 2 | 3 | 4 | 5 |
| 14. This store willingly handles returns and exchanges. | 1 | 2 | 3 | 4 | 5 |
| 15. Employees in this store are able to handle customer complaints immediately. | 1 | 2 | 3 | 4 | 5 |
| 16. This store provides plenty of convenience parking for customers. | 1 | 2 | 3 | 4 | 5 |
| 17. This store has operating hours convenient to all customers. | 1 | 2 | 3 | 4 | 5 |
| 18. This store issues credit card and you can enjoy discount with this store's credit card. | 1 | 2 | 3 | 4 | 5 |
| 19. I think that the general quality of this store's service is good. | 1 | 2 | 3 | 4 | 5 |

- | | | | | | |
|---|---|---|---|---|---|
| 20. Overall, my feeling toward this store is excellent. | 1 | 2 | 3 | 4 | 5 |
| 21. I think that my purchasing experience in this store is usually a satisfying experience. | 1 | 2 | 3 | 4 | 5 |
| 22. You will recommend this store to someone who seeks your advice. | 1 | 2 | 3 | 4 | 5 |
| 23. You will encourage friends and relatives to do business with this store. | 1 | 2 | 3 | 4 | 5 |
| 24. You will consider this store as your first choice for shopping. | 1 | 2 | 3 | 4 | 5 |
| 25. You will do more shopping with this store in the next 6 months. | 1 | 2 | 3 | 4 | 5 |

SECTION 3 Respondent's General Information

1. Age: _____
2. Gender: _____ Male
 _____ Female
3. Race: _____ Caucasian/White
 _____ Hispanic
 _____ Asian/Pacific Islander
 _____ African American
 _____ American Indian/Aleut
 _____ Others
4. Education: _____ Grade School
 _____ High School
 _____ College
 _____ Graduate School
5. Annual Household Income (before tax): _____ Less than \$20,000
 _____ \$20,000 – 39,000
 _____ \$40,000 – 59,000
 _____ \$60,000 – 79,000
 _____ More than 80,000
6. Number of People in Household: _____

Thank you very much for completing this questionnaire. I greatly appreciate your help with my research.

Yan Lu
Master Candidate
304 Dawson Hall
The University of Georgia
Athens, GA 30605

Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu

APPENDIX C

STORE LOCATIONS

Favorite Store	Locations (0 - 10 miles)	Locations (10 - 40 miles)	Locations (40 - 60 miles)	Locations (60 - 80 miles)
Belk	Athens, 30606	Buford, 30519 Gainesville, 30501	Cornelia, 30531 Hartwell, 30643	
Macy's	Athens, 30606	Buford, 30519	Duluth, 30096 Lithonia, 30038	Atlanta, 30341
JCPenny	Athens, 30606	Buford, 30519	Duluth, 30096 Lithonia, 30038	
Kohls	Athens, 30606	Dacula, 30019 Lawrenceville, 30045 Gainesville, 30501 Snellville, 30078		
Nordstrom		Buford, 30519	Atlanta, 30346	Atlanta, 30326
Sears	Athens, 30606	Gainesville, 30501	Duluth, 30096 Lithonia, 30038	
Dillard's		Buford, 30519	Lithonia, 30038 Atlanta, 30346	
Parisian			Duluth, 30096 Lithonia, 30038	Atlanta 30326
Bloomingdale's			Atlanta, 30346	Atlanta, 30326
Lord & Taylor			Lithonia, 30038	
Neiman Marcus		Lawrenceville, 30043		Atlanta, 30326