A Causal Model of Customer Loyalty in Professional Service Firms: An Empirical Study

Sheue-Ching Hong
Hsing Wu College, Taiwan

Y. J. James Goo
National Taipei University, Taiwan

In general, business organizations make considerable use of professional services. However, it has received less attention in the context of professional business services than of other consumer services. The purpose of this study is to examine a proposed causal model of customer loyalty in professional service firms and seeks to test the model with a sample of listed and OTC companies in Taiwan. The results indicate that the SERVQUAL instrument with five-dimension provides good measurement of service quality for professional accounting business. To create behaviorally loyal customers, movement along service quality→customer satisfaction→loyalty is necessary. In addition, our findings provide substantial support for the hypothesized model. Managerial implications from this study are also provided.

Introduction

Most people would agree that the value of loyalty is as a proxy for actual customer retention and subsequent profitability (Johnson, Gustafsson, Andreassen, Lervik, and Cha, 2001). Considerable evidence suggests that customers of service providers, especially business services, tend to remain with the same provider if customers are continually satisfied (Davidow and Uttal, 1989; Woodside, Wilson, and Milner, 1992). Thus, the issue of customer satisfaction has become extremely important for the success of any business in this dynamic and intensive competition environment. If not recognized and responded to customers' needs rapidly and effectively, a firm may result in increased pressure of work, lost revenue opportunities, and ultimately, in increased levels of customer dissatisfaction (Gurau and Ranchhod, 2002). Therefore, a firm must constantly ask itself, "what do clients want from us?" and "how do we improve what clients actually perceive?"

Business organizations make considerable use of professional services. However, it has received less attention in the context of professional business services than of other consumer services in general. The purpose of this study is to examine a proposed causal model of customer loyalty in professional service firms and seeks to test the model with a sample of listed and OTC companies in Taiwan.

This article is structured as follows. First, a conceptual framework is presented with hypotheses. Second, research methodology along with collection procedures and measurement of the constructs are introduced. Third, the results of the empirical study are discussed. Finally, we conclude by noting the managerial implications of the study's findings and provide directions for future research.

Conceptual Model and Hypotheses

Our conceptual model is demonstrated and tested as Figure 1, which is amended from Johnson et al. (2001). This model begins with SERVQUAL measurement scale, consisting of five-dimensional structure (responsiveness, assurance, empathy, tangibles, and reliability), to assess service quality. Then, we develop a set of hypotheses surrounding major variables (such as price, firm image, service quality, customer satisfaction, and customer loyalty). Furthermore, the effect of these variables is examined.

Service Quality

By definition, service quality construct is the difference between expected service and perceived service (Parasuraman, Zeithaml and Berry, 1985). Service providers must realize that the key to service quality is consistently meeting or exceeding consumer expectations (Bojanic, 1991). Consumers' perceptions of service quality depend on the size and direction of the gap between expected service and perceived service (Parasuraman et al., 1985). Service quality is more difficult for the consumer to evaluate than product quality because of the lack of tangible evidence associated with service. This is especially true for professional services because they tend to be very people-based.

Since the appearance of Parasuraman et al.'s (1985, 1988) research, which developed their scale to measure service quality (SERVQUAL), numerous researchers have attempted to empirically replicate the instrument's five-dimensional structure consisting of responsiveness, assurance, empathy, tangibles, and reliability. Since the SERVQUAL instrument has been productively used for measuring service quality in many proprietary studies, this study intend to employ SERVQUAL instrument to measure service quality in the context of professional service.

Figure 1 conceptual model
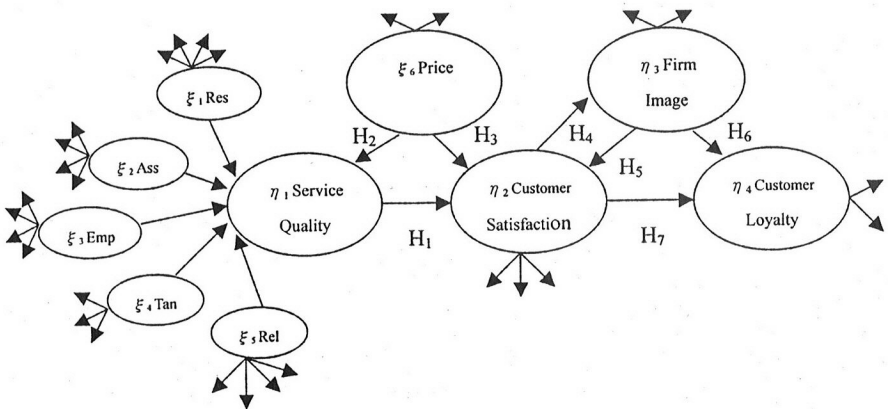
Customer Satisfaction

Satisfaction and perceived quality are highly intercorrelated (Bitner and Hubbert, 1994). Some studies find that satisfaction drives a general perception of quality, while others find that perceptions of quality drive satisfaction (De Ruyter, Bloemer, and Peeters, 1997). Most marketing researchers seem to accept a theoretical framework in which quality leads to satisfaction (Dabholkar, Shepherd, and Thorpe, 2000; Oliver, 1997), which in turn influences purchasing behavior (Johnson and Gustafsson, 2000; Oliver, 1999). These arguments suggest that service quality is likely to affect customer satisfaction. This leads to our first research hypothesis:

H_1: Service quality is positively associated with customer satisfaction.

Price

Price is defined what is given up or sacrificed to obtain a product or service from the consumer's perspective (Zeithaml, 1988). A positive price-service quality relationship does appear to exist in some empirical results (Monroe and Krishnan, 1985; Dodds, Monroe, and Grewal, 1991; Teas and Agarwal, 2000). Postpurchase price perceptions have a significant, positive effect on satisfaction (Voss, Parasuraman, and Grewal, 1998). Zeithaml and Bitner (2000) contended the price of the service could have great influence on the perceptions of quality, satisfaction, and value. Since services are intangible and difficult to judge before purchase, price is often employed as a surrogate indicator that will influence quality expectations and perceptions accordingly. Therefore, we propose the following:

H_2: The price of service is positively associated with service quality.

H_3: The price of service is positively associated with customer satisfaction.

Firm image

Firm image is defined as perceptions of a firm reflected in the associations held in consumer memory (Keller, 1993). Some researchers believed that firm image would have been affected by the customer's more recent consumption experiences or customer satisfaction (Johnson et al., 2001). Gronroos (1990) contended that a favorable and well-known image is an asset for any organization because image can impact perceptions of quality, value, and satisfaction. Researchers have emphasized firm image affects perceptions of quality performance as well as satisfaction and loyalty (Andreassen and Lindestand, 1998). Zeithaml and Bitner (2000) argued that firm image would influence customer perceptions of the service firm's operations and would be reinforced by actual service experiences. Hence

H_4: Customer satisfaction is positively associated with firm image.

H_5: Firm image is positively associated with customer satisfaction.

H_6: Firm image is positively associated with customer loyalty.

Customer loyalty

Oliver (1999) defines it as a commitment to rebuy or repatronize a preferred product/ service consistently in the future. Perhaps the most common assessments of loyalty are behavioral measures expressed over time or repurchase patterns. Satisfaction is a necessary prerequisite for loyalty but is not sufficient on its own to automatically lead to repeat purchases or brand loyalty (Bloemer and Kasper, 1995). Some studies have tested the relationship between quality, satisfaction, and intention-based loyalty (Gotlieb, Grewal, and Brown, 1994; Taylor and Baker, 1994; Dabholkar et al., 2000; Olsen, 2002) and assume these relationships to be positive but to vary between products, industries, and situations (Fornell, Johnson, Anderson, Cha, and Bryang, 1996; Johnson et al., 2001; Mittal and Kamakura, 2001). Some authors argued that associating higher levels of satisfaction would increase customer retention (Jones and Sasser, 1995). Therefore, on the basis of the literature, it is reasonable to put forward the following hypothesis:

H_7: Customer satisfaction is positively associated with customer loyalty.

Methodology

Sample and Data Collection

Questionnaires with prepaid postage along were sent to controllers or CFOs of all listed and OTC companies in Taiwan (595 of which are listed companies and 500 of which are OTC companies). Of the 1095 instruments mailed, 256 questionnaires were returned (22 of which were unusable), yielding an effective responsive rate of 21.36%. The sample consists 234 companies that span various industries (21 industries) from cement, foods, ...to banking and insurance industries. Firm sizes (based on sales) are ranged from 100 million to over100 billion in NT dollars.

Measurement of the Constructs

All constructs are measured using multiple indicators. A 5-point Likert scale was applied to measure the different constructs anchored from strongly disagree to strongly agree. As to service quality, we described 19 measurement variables adapted from Parasuraman et al. (1988; 1991) SERVQUAL instrument to this particular professional accounting business. This led to five-factor dimension of service quality, consisting of tangibles, reliability, responsiveness, assurance and empathy. Customer satisfaction was measured using identical items adapted from Fornell et al. (1996). Measures for price were adapted from items used by Mayhew & Winer (1992) and Winer (1986). Firm image was measured by adapting relevant scale items from Johnson & Gustafsson (2000). Customer loyalty was measured by adapting scale items from Zeithaml, Parasurman, and Berry (1996).

Validation of measures

This study follows two-steps procedure of SEM (Anderson and Gerbing, 1988). Our first step was to confirm that each measure taps facets of the intended construct. A measurement model is specified for each construct. Individual items in the model are

examined to see how closely they represent the same construct (Ahire, Golhar, and Waller, 1996). While, the second step was to analyze the structural model.

The measurement model includes 28 indicators of six exogenous and four endogenous constructs. We conducted a confirmatory factor analysis (CFA) using maximum likelihood estimation technique. The χ^2 (chi-square) fit test is usually sensitive to sample size. Other indices are also included: root mean square error of approximation (RMSEA), Goodness-of –Fit Index (GFI), Comparative Fit Index (CFI), and Non-Normed Fit Index (NNFI). Overall, our scale's CFA fit statistics were acceptable (χ^2 =868.94, d.f.= 345, χ^2/d.f.= 2.52, GFI=.79, RMSEA=.08, CFI=.85, NNFI=.83,) and each measure reflected the appropriate constructs proposed in our model.

Since SERVQUAL is a well-established measure, the scale can be considered to possess content validity. Empirically, convergent validity can also be assessed by reviewing the t-tests for the factor loadings of the indicators. If all factor loadings for the indicators measuring the same construct are statistically significant (greater than twice their standard error), this can be viewed as evidence supporting the convergent validity of those indicators (Anderson and Gerbing, 1988). Our results indicate that all t-tests are significant showing that all indicators are effectively measuring the same construct, or high convergent validity. For the sake of brevity, those t-tests results are not reported here.

The reliability of each construct assessed by Cronbach α is also examined. In our model, all values of Cronbach α are ranged from .72 to .86 except for the loyalty with .64. Usually, Cronbachof .6 and .7 or above is considered to be the criteria for demonstrating internal consistency of new scales and established scales respectively (Nunnally, 1988).

Analysis and Results

Table 1. Construct Structural Model

Linkage in the model	Hypothesis	Estimate	t-value
Service quality → Customer satisfaction	H_1	.51**	7.00
Price → Service quality	H_2	.24**	3.02
Price → Customer satisfaction	H_3	.29**	4.06
Customer satisfaction → Firm image	H_4	.67**	4.13
Firm image → Customer satisfaction	H_5	-.01	-.05
Firm Image → loyalty	H_6	.36**	3.01
Customer satisfaction → loyalty	H_7	.36**	3.05

Model fit indices:

$\chi^2_{(338)}$ = 595.87, χ^2/d.f. = 1.76, p < .0001, GFI= .85, RMSEA=.06, CFI=.93, NNFI=.92

** Significant at p < .01

Table 1 identifies the overall fit indices of our structural model are adequate (χ^2/d.f. = 1.76 < 3, GFI = .85, RMSEA = .06, CFI = .93, NNFI = .92). Table 1 also indicates that all relationships (H_1 to H_7), with the exception of H_5, are supported as Hypothesized. The findings indicate that service quality is positively associated with customer satisfaction (H_1). This is also consistent with some previous studies (Bitner and Hubbert, 1994; Gotlieb et al., 1994; Olsen, 2002). The implication is clear: the better the service quality, the higher is the customer satisfaction. H_2 proposes that the price of service directly influences service quality. We found the direct path coefficient from price to service quality is significant and positive (.24) which is in support of H_2. Similarly, the price of service is hypothesized to directly influence customer satisfaction (H_3). The result demonstrates the price has significantly positive impact on customer satisfaction (.29). So H_3 is supported. The findings for H_4 suggest that the higher the customer satisfaction, the better the firm image is. However, there is no statistical significance that firm image will affect customer satisfaction. Therefore, H_5 is not supported. This may imply that an accounting firm with good image alone is not sufficient enough to result in customer satisfaction. The results indicate that firm image is positively associated with loyalty in support of H_6. The relationship between customer satisfaction and loyalty is also significant and positive. Thus, H_7 is supported. As expected, our findings also supports that the satisfaction-loyalty relationship (standardized path coefficient of .36) is weaker than the relationship between quality and satisfaction (standardized path coefficient of .51) (Cronin, Brady, and Hult, 2000).

Conclusion and Implications for management

This is one of the few articles to investigate causal model of customer loyalty in accounting firms with an empirical study from Taiwan listed and OTC companies' perspective. Our results indicate that the SERVQUAL instrument with five-dimension provides good measurement of service quality in the context of professional accounting business. In addition, our findings provide substantial support for the hypothesized model.

Analysis of SERVQUAL may direct an accounting firm manager to dedicate more resources toward improving the dimension where the gaps are more excessive. An action plan is required to collect preliminary data from their clients. From the data, the gaps should be calculated along the five dimensions discussed. Large gap usually indicates dimensions where the client's perceptions are much less than their expectations, and turns out to cause client dissatisfaction. Therefore, these dimensions then provide directions for improvement. Accordingly, accounting firm resources can be allocated to target a specific dimension that has a large gap. For example, a large assurance gap may indicate that further attention to employees' professional trainings is required. Once an improvement plan is implemented, follow-up surveys need to be employed to measure the improvement. Meanwhile, accounting firms need to recognize and response effectively to those problem areas if they still want to retain customers in the highly competitive environment.

Zeithaml and Bitner (2000) stated that one of the important types of external communications in services is the price of the service. Under some circumstances, customers likely depend on price as a cue to quality and because price sets expectations of quality. Some researcher argued that client satisfaction with the audit team is positively associated with fees (Behn, Carcello, Hermanson, and Hermanson, 1999). Our findings indicate that the direct effects of price on service quality and customer satisfaction are both significantly positive with path coefficients of .24 and .29, respectively. Accordingly, it is not surprising that some major contributors to customer satisfaction are price and service quality in the context of accounting firms.

From our empirical results, it is interesting to find out that customer satisfaction has a positive influence on the firm image. However, the firm image seems to have no statistically significant impact on customer satisfaction on the other hand. We can infer that it is critical for an accounting firm manager should devote more attention to increase customer satisfaction instead of firm image. This way not only would be easier to retain existing clients but also would result in building up better firm image, which in turn enhances customer loyalty. As we know, any firm with good image would be in a better position to keep or attract clients in the competitive battlefield.

The direct effect of customer satisfaction on loyalty is also positive and significant. In our model, customer satisfaction acts as a mediator between service quality and loyalty, which is also in line with some researchers' findings (Dabholkar et al., 2000; Olsen, 2002). Thus, it appears that to create behaviorally loyal customers, movement along service quality!customer satisfaction!loyalty is necessary. Our findings also supports that the satisfaction-loyalty relationship is weaker than the relationship between quality and satisfaction (Cronin et al., 2000; Olsen, 2002). Accordingly, we would suggest that accounting firms might be better off devoting more energy in improving service quality within limited firm resources.

Limitations and Further Research

Notwithstanding the interesting results, several limitations need to be acknowledged. First, although this data set is representative of listed and OTC companies in Taiwan, it should not be taken as a generalization for other industries because of different industry characteristics, business culture, and management styles may be imposed. Second, inferring causal relationships based on cross-sectional data can be problematic. Longitudinal data are particularly desirable for testing a structure model like ours, because the model conceptually assumes a sequential, temporal order of causality, whereas our cross-sectional data set does not. Further research is encouraged to use longitudinal data instead. Third, this study relies on single-informant, and subjective measures. The single informant approach makes the data vulnerable to a possible biased evaluation. Using multiple informants is desirable in further research, which should render proper qualifications to our results.

Footnote

Portions of this paper were presented at thirty-second annual meeting of Northeast Decision Sciences Institute, Providence, Rhode Island, USA, March 2003.

References

Ahire, S. L., D. Y. Golhar, and M. A.Waller (1996), "Development and Validation of TQM Implementation Constructs," **Decision Sciences**, 27, 23-56.

Anderson, J. C., and D. W. Gerbing (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two-step Approach," **Psychological Bulletin** (103:3), 411-423.

Andreassen, T. W., and B. Lindestand (1998), "The Effects of Corporate Image in the Formation of Customer Loyalty," **Journal of Service Marketing**, 1, 82-92.

Behn, Bruce K., Joseph V. Carcello, Dana R. Hermanson, and Roger H. Hermanson (1999), " Client Satisfaction and Big 6 Audit Fees," **Contemporary Accounting Research**, 16(4), 587-608.

Bitner, Mary J. and Amy R. Hubbert (1994), "Encounter Satisfaction Versus Overall Satisfaction Versus Quality: The Customer's Voice," **In Service Quality: New Directions in Theory and Practice**. Eds. Roland T. Rust and Richard L. Oliver. Thousand Oaks, CA: Sage, 72-94.

Bloemer, José and Hans D. P. Kasper (1995), "The Complex Relationship Between Consumer Satisfaction and Brand Loyalty," **Journal of Economic Psychology**,16, 311-329.

Bojanic, David C. (1991), "Quality Measurement in Professional Service Firms," **Journal of Professional Services Marketing**, 7(2), 27-36.

Cronin, Joseph, Jr., Michael K. Brady, and G. Thomas M. Hult (2000), "Assessing the Effects of Quality, Value, and Customer Satisfaction on Behavioral Intention in Service Environments," **Journal of Retailing**, 76(2), 193-218.

Dabholkar, Pratibha A., C. David Shepherd, and Dayle I. Thorpe (2000), "A Comprehensive Framework for Service Quality: An Investigation of Critical Conceptual and Measurement Issues Through a Longitudinal Study," **Journal of Retailing**, 76(2), 139-173.

Davidow, William H. and Bro Uttal (1989), **Total Customer Service: The Ultimate Weapon**. New York: Harper & Row.

De Ruyter, K., J. Bloemer, and P. Peeters (1997), "Merging Service Quality and Service Satisfaction: An Empirical Test of an Integrative Model," **Journal of Economic Psychology**, 18, 387-406.

Dodds, W. B., K. B. Moroe, and D. Grewal (1991), "Effects of Price, Brand, and Store Information on Buyers' Product Evaluation," **Journal of Marketing Research**, 28 (August), 307-317.

Fornell, C., Michael D. Johnson, Eugene W. Anderson, Jaesung Cha, and Barbara E. Bryang (1996), "The American Customer Satisfaction Index: Nature, Purpose, and Findings," **Journal of Marketing**, 60(October), 7-18.

Gotlieb, Jerry B., Dhurv Grewal, and Stephen W. Brown (1994), "Consumer Satisfaction and Perceived Quality: Complementary or Divergent constructs?" **Journal of Applied Psychology**, 79(6), 875-885.

Gronroos, Christian (1990), "Managing Total Market Communication and Image," **Service Management and Marketing**, Lexington, Mass: Lexington Books

Gurau , Calin, and Ashok Ranchhod (2002), "How to Calculate the Value of a Customer Measuring Customer Satisfaction: A platform for calculating, predicting and increasing customer profitability," **Journal of Targeting, Measurement and Analysis for Marketing**, 10(3), 203-219.

Johnson, M. D., and A. Gustafsson (2000), **Improving Customer Satisfaction, Loyalty and Profit: An integrated Measurement and Management System**, San Francisco, CA: Jossey-Bass.

_____, _____, Tor W. Andreassen, Line Lervik, and Jaesung Cha (2001), "The Evolution and Future of National Customer Satisfaction Index Models," **Journal of Economic Psychology**, 22, 217-245.

Jones, Thomas O. and W. Earl Sasser Jr. (1995), "Why Satisfied Customers Defect," **Harvard Business Review**, 73 (Nov/Dec), 88-99.

Keller, Kevin L. (1993), "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity," **Journal of Marketing**, January, 1-22.

Mayhew, G. E., and R. S. Winer (1992), " An Empirical Analysis of Internal and External Reference Prices Using Scanner Data," **Journal of consumer Research**, 19, 62-70.

Mittal, Vikas and Wagner A. Kamakura (2001), "Satisfaction, Repurchase Intent, and Repurchase Behavior: Investigating the Moderating Effect of Customer Characteristics," **Journal of Marketing Research,** 38 (February): 131-142.

Monroe, Kent B. and R. Krishnan (1985), "The Effect of Price on Subjective Product Evaluations," in **Perceived Quality**, J. Jacoby and J. Olson, eds. Lexington, MA: Lexington Books, 209-232.

Nunnally, J. C. (1988), **Psychometric Theory**, McGraw-Hill Book Company, Englewood-Cliffs, NJ.

Oliver, Richard L. (1997), **Satisfaction: A Behavioral Perspective on the Consumer**, New York: McGraw Hill.

_____ (1999) "Whence Consumer Loyalty?" **Journal of Marketing**, 63, 33-44.

Olsen, Svein O. (2002), "Comparative Evaluation and the Relationship Between Quality, Satisfaction, and Repurchase Loyalty," **Journal of the Academy of Marketing Science**, 30 (3), 240-249.

Parasuraman, A., Valerie A. Zeithaml, and Leonard L. Berry (1985), "A Conceptual Model of Service Quality and its Implications for Future Research," **Journal of Marketing**, 49 (Fall), 41-50.

_____, _____, and _____ (1988), "SERVQUAL: a Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality," **Journal of Retailing**, 64(1), 12-40.

_____, _____, and _____ (1991), "Refinement and Reassessment of the SERVQUAL Scale," **Journal of Retailing**, 67(4), 420-450.

Taylor, Steven a. and Thomas L. Baker (1994), "An Assessment of the Relationship Between Service Quality and Customer Satisfaction in the Formation of Consumers' Purchase Intentions," **Journal of Retailing**, 70 (2), 163-178.

Teas, R. Kenneth and S. Agarwal (2000), "The Effects of Extrinsic Product Cues on Consumers' Perceptions of Quality, Sacrifice, and Value," **Journal of Academy of Marketing Science**, 28(2), 278-290.

Voss, Glenn B., A. Parasuraman, and Dhruv Grewal (1998), "The Roles of Price, Performance, and Expectations in Determining Satisfaction in Service Exchanges," **Journal of Marketing**, Vol. 62 (October), 46-61.

Winer, R. S. (1986), "A Reference Price Model of Brand Choice for Frequently Purchased Products," **Journal of Consumer Research**, 13, 250-256.

Woodside, Arch G., Elizabeth J. Wilson, and Patricia Milner (1992), "Buying and Marketing CPA services," **Industrial Marketing Management**, 21, 265-272.

Zeithaml, Valarie . A (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence," **Journal of Marketing**, 52(July), 2-22.

_____ and Mary Jo Bitner (2000), **Service Marketing**, New York: McGraw-Hill.

_____, V. A., A. Parasurman, and L. L. Berry (1996), "The Behavioral Consequences of Service Quality," **Journal of Marketing**, 6, 31-46.

Contact email address: ko832@ms21.hinet.net   goo@mail.ntpu.edu.tw