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Do Happier Customers Generate More Profits? An Analysis of Customer Contribution in a Bank

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Abstract

Despite the debate over whether customer satisfaction enhances business benefits, due to difficulties in data collection, little research has investigated the direct impact of customer satisfaction on customer contribution. With special permission from a bank, this study examined 373 valid bank customer samples of individual customer product/service satisfaction and their related contributions to the bank. Major findings are that the customer satisfaction, be it with the product or services, has no significant influence on customer contribution. Individual attributes, such as customer assets, however, are significantly related to customer contribution. This finding has implications for the general understanding that the higher the customer satisfaction, the greater the business benefits. Customer satisfaction has become a fundamental target of business practice. Banks that desire to increase and sustain customer contribution should pay specific attention to different customer attributes and provide satisfying products and services to fulfill customer needs.

Keywords: Product quality, service quality, customer satisfaction, customer assets, customer contribution

1. Introduction

Customer contribution, especially sustained and increasing customer contribution, is the key to business benefits. Revenue is generated both by the margins banks earn on customer borrowing and investment activities and by fees such as transaction fees and credit card fees. In the early stage of the Taiwan banking industry, high-net-worth individuals (HNWIs) were increasing. Since there were few banks with wealth management, it was easy to develop these customers. With the opening of a market based on law, the finance industry (including domestic and foreign banks, insurance companies, the investment industry, and the securities industry) has participated in this market and has regarded the enhancement of customer satisfaction as the top priority (Chen et al., 2004). However, this stream of service income is not necessarily stable due to the intensive competition in the consumer banking industry. Today, the companies in Taiwan have limited resources, but they must create a high level of profits, and they need to use the most efficient costs-cutting strategies. Thus, the banks focus on the development of wealth management. Nevertheless, the construction costs of the products or services related to wealth management vary, including the system of one-to-one fittest-customer-asset arrangement, splendid decoration of the flagship store, an immediate

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reporting system on selling at a loss and locking in gains, training for professional personnel, preferential treatment, among other things. Accordingly, this study first intends to find the construction costs with maximum investment benefits. Since turning less-profitable customers into more-profitable customers can upgrade their relationship to one of implicit profit in banks' customer-management strategies (Garland, 2004), enhancing customer financial contribution is an initial and critical step in strengthening customer relationship management (CRM).

Over the last decade, significant attention has been focused on the link between customer satisfaction and profit (Bernhardt et al., 2000). Most companies have treated customer satisfaction management as a necessity (Honomichl, 1993). Maximum customer satisfaction is the priority of companies for achieving cost effectiveness and higher market share (Mittal and Kamakura, 2001). In the early stages of the banking industry, there were few banks invested in customer value management and paying special attention to customer satisfaction and customer services, because it was relatively easy to acquire and retain customers due to the regulated market situation. With the liberalization of banking regulation, finance companies, including domestic and foreign banks, insurance companies, investment and trusts, and securities firms, participate in this market and regard the enhancement of customer satisfaction as a top priority. High net-worth customers were especially sought in the complex and competitive global wealth-management market. Financial service companies continuously make large investments to develop customized product design, responsive services, promotion activities, and market programs to boost customer contributions. Moreover, marketing in the banks has transformed their orientation from product to customer. All service industries endeavor to increase customer satisfaction in product and services in order to sustain and increase customer contribution.

Does higher customer satisfaction lead to superior profits for the companies? Previous researches (Anderson et al., 1994; Jones and Sasser, 1995; Reichheld, 1996; Anderson and Mittal, 2000) indicate that there is a positive correlation between customer satisfaction and the profits of the companies. For instance, customer satisfaction enhances customer re-purchase intention (Oliver and Swan, 1989; Mittal and Kamakura, 2001) and the operating performance of the companies (Anderson et al., 1994; Jones and Sasser, 1995; Reichheld, 1996; Anderson and Mittal, 2000). From the point of view of business capability, managing customer assessments of satisfaction with the product and service may have positive benefits for the organization downstream regarding usage, loyalty, and profits (Bolton and Lemon, 1999). Under intense competition, companies spend more satisfying customers to retain and generate benefits from the customers. In the past decade, most banks have invested greatly in product/service quality to build high customer satisfaction (Dean, 2002; Wang et al., 2003; Lopez et al., 2007), such as customer-service centers, customer-relationship management, service education, reporting systems, and advanced interactive systems. However, there are also research findings (Mazursky and Geva, 1989) that indicate that there is no direct link between satisfaction and behavioral intentions (Mittal et al., 1999). Schneider (1991, p.154) finds that customer service-quality perceptions and satisfaction may sometimes be reflected in business profits, but the relationship is not certain. Keiningham et al. (2005) found that for a large institutional securities firm, the link between customer satisfaction and overall profit exists only for some groups of customers. Furthermore, since it is difficult to obtain confidential customer data, in-depth studies of individual customers regarding the relationship between customer satisfaction and their contribution are lacking.

In addition to product/service satisfaction, customer attributes, such as customer assets, have become increasingly important in affecting the customer contribution of a firm (Hogan et al., 2002). In banks' practice experience, when the customers are more capable of purchasing the financial products (i.e., they have more deposit balance or liquid financial assets for investment), they are more likely to spend more on either the same or different products and services (Hogan et al., 2002). Thus, banks have provided a variety of preferential treatments and additional value services for these high-value customers. However, empirical investigation on the relationship between customer attributes and their direct contribution does not yet exist. It is essential to investigate whether customer attributes can efficiently predict individual customer contribution.

In sum, the objectives of the study are to examine the controversial factor of customer satisfaction that can affect customer contribution and explore the relationships among product satisfaction, service satisfaction, customer attributes, and individual contribution to the business profit. Based on existing literature and refined by industrial experts, this study developed a model of customer contribution and examined the relationship of customer satisfaction and customer attributes with customer contribution in a bank. The results provide specific insights into the research on the enhancement of customer contribution and suggest strategies for customer value management in the banking industry.

2. Conceptual development

2.1 Product quality and customer contribution

Product quality is the overall evaluation of the products (Olshavsky and Miller, 1972). According to Garvin (1984), measurement of the products should be based on internal failure and external failure. Internal failure occurs before product delivery, and external failure occurs after the product delivery (Garvin, 1984). However, product quality should be based on the consumer perspective (Parasuraman et al., 1988) and could be defined as the "usefulness" of products (Juran, 1988). In addition, product quality perception also means that consumers consciously or unconsciously deal with the attributes related to quality using meaningful personal or situational factors and further select their products (Steenkamp, 1990). Thus, consumer product quality perception can facilitate greater customer profit (Anderson et al., 1994). Based on the above, this study proposes the hypothesis below.

H1: Product quality positively influences customer contribution.

2.2 Service quality and customer contribution

In early times, service quality meant that service results can meet the needs of the customers (Levitt, 1972). However, Sasser et al. (1978) indicated that service quality should not only include the best results but also be related to the service operations. The concept of service level and service quality are similar. Service level refers to the level of the external and internal benefits for the customers from the services, and should be divided into expected service level and perceived service level (Parasuraman et al., 1985). Thus, Parasuraman et al. (1985) defined service quality as the result upon the comparison between the customers' "expected service" and "perceived service performance". When the expected service level is equal to perceived service level, it means that service quality is acceptable; when the perceived service level is higher than expected service level, service quality is high; and when the perceived service level is lower than expected service level, service quality is low. For consumers, service quality is their satisfaction with the service and is based on the difference between actual service and the expectation (Churchill Jr. and Surprenant, 1982). Hence, since service should be divided into process quality, as judged by consumers during a service, output quality is judged after a service is performed (Lehtinen and Lehtinen, 1991). Since service quality is the attitude toward customers' long-term and overall evaluation of the service (Bateson and Hoffman, 2002), it is called Perceived Service Quality, and may be generally defined as "the consumers' subjective and overall evaluation on the products". Moreover, research has indicated that service quality positively influences customer value (Taylor and Baker, 1994; Zeithaml et al., 1996; Lee and Lin, 2005). The enhancement of service quality thus may enhance customers' re-purchase behavior (Ravald and Gronroos, 1996), since service quality is the antecedent of customer satisfaction (Cronin and Taylor, 1992). Accordingly, this study hypothesizes:

H2: Service quality positively influences customer contribution.

2.3 Overall customer satisfaction and customer contribution

The mission of most companies is to develop satisfied customers, since it is thought that profit is essentially the return on customer satisfaction (Drucker, 1954). Reichheld and Sasser (1990) investigated 14 industries, and found that a 5% reduction in customer loss increases profits 25%~95%. In fact, the traditional price advantage of the products is insignificant, and customer satisfaction is thus the only meaningful instrument because customer satisfaction not only directly influences brand reputation, word of mouth, market share, and business image, but also changes the competitive status to positively affect profits (Muller, 1991). A high level of customer satisfaction usually results in seven benefits for the companies (Fornell, 1992): (1) increasing the original customers' loyalty, (2) reducing the customers' price flexibility, (3) preventing customer loss due to competition, (4) reducing transaction costs, (5) reducing the cost of attracting new customers, (6) reducing the cost of failure, and (7) enhancing the reputation of the firm. In the past decade or so, scholars have proposed different views (Mulhern, 1999; Zeithaml et al., 2001; Reinartz and Kumar, 2002; Keiningham et al., 2005; Garland, 2002; Campbell and Frei, 2004), and related empirical studies have steadily accrued. Garland (2002) stated that in the banking industry, satisfied customers do not necessarily have high profit. The customers with high contribution may be the ones with the loans, and they may not leave easily due to high switching cost. By telephone interview, Keiningham et al. (2005) investigated the satisfaction of 81 clients of an institutional securities firm across two continents (North America and Europe) and found that the link from satisfaction to profit is not as straightforward as is typically proposed. For profitable clients, there is a positive relationship between satisfaction and revenue, while for unprofitable clients there is negative relationship between satisfaction and revenue. Hence, different products, services and prices provided by the companies influence customer contribution differently.

In sum, the study intends to arrive at an understanding of the correlation between customer satisfaction and customer contribution. Much previous research provides support for the contention that consumers' product quality perception is the antecedent of customer satisfaction (Zeithaml and Bitner, 1996; Holm, 2000; Hoisington and Naumann, 2003; Babakus et al., 2004; Fecikova, 2004) and that service quality positively affects customer satisfaction (Dean, 2002; Wong and Sohal, 2003; Wong, 2004) and, in turn, profits (Anderson et al., 1994). Some businesses (e.g., all New Zealand banks) take it for granted that "satisfied customers are the ones with benefits" (Garland, 2005) and earlier research generally supports a link between total customer satisfaction and total operating performance of firms (Anderson et al., 1994). Thus, hypothesis 3 is proposed:

H3: Customer satisfaction positively influences customer contribution.

H3a: The higher the product quality, the more it is able to enhance customer satisfaction.

H3b: The higher the service quality, the more it is able to enhance customer satisfaction.

H3c: The higher the customer satisfaction, the more it is able to enhance customer contribution.

2.4 Customer assets and customer contribution

A focus on high-potential-value customers is critical to increasing business profit (Hogan et al., 2002). A company can perform the most appropriate marketing actions to retain and enhance customer assets, and then maximize financial returns (Berger et al., 2002). In addition, customer assets, especially assets under management (AUM), is used by most financial services companies as the measure of success and comparison against their competitors (Wikipedia, 2009), and hence it also is the criterion by which to judge the customers' financial capability, differentiate the customers' value management, and provide differentiation services. According to the definition of Bloomberg (2009), a government-sponsored publication, AUM is defined as customers' substantial assets under the management of financial institutions. Overall, customer assets are not only an important index for banks to measure their rivals' performance, but are also a tool for many professional units to measure international wealth distribution. For instance, Merrill Lynch, one of the world's leading wealth-management, capital markets, and advisory companies, and Capgemini, one of the world's foremost providers of consulting, technology, and outsourcing services, have been observing and studying the development and investment of high net-worth individuals and regularly publish reports (Merrill Lynch, 2006). Thus, customer assets can be considered in the strategies of customer asset management focusing mainly on customer value maximization and customer acquisition-retention optimization. In practice, banks appear to believe that customers with higher customer assets will make a greater contribution. Thus, hypothesis 4 is proposed:

H4: Customer attributes can positively influence customer contribution.

In sum, this study aimed to explore the antecedents of customer contribution in the banking industry. With special permission from both the bank and its customers, we investigated the relationships among product quality, service quality, and customer satisfaction by questionnaire survey, and then we collected the customers' attributes and contribution through the bank's Data Warehouse to identify the links among customer satisfaction, customer attributes, and customer contribution. The research framework is shown in Figure 1.

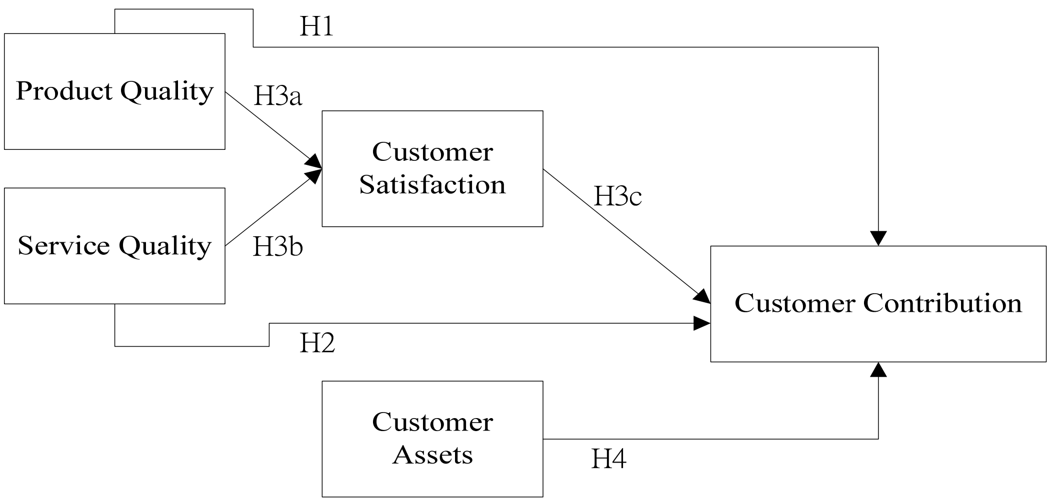

Figure 1. Research model

3. Research methodology

3.1 Measures

This study used multiple measures of customer satisfaction, contribution, and customer assets. We constructed a customer service questionnaire (Appendix), in four sections. The first section assesses customers' basic information: gender, age, annual income, and educational level. This information is used to build the construct of customer attributes. The items in the other three parts are based on a 1–5 Likert scale, from "strongly disagree" (1) to "strongly agree" (5). In order to meet the characteristics of the banking industry, the study divides product quality into consumers' perceptions (such as diversity of products, satisfaction with varied kinds of products, fee rationality, operational performance), and consumers' perceived service quality (such as financial consultants' professionalism, financial consultants' service process, information completeness, expected service efficiency, convenience of products, convenience of locations, qualified facilities) so as to further probe into the correlation between these two constructs and customer profitability. Thus, the second section contains the scale of product quality based on Garvin (1984) and expert opinion. This study contains three constructs of the consumers' perceived financial product quality ("sufficiency", "fee rationality" and "performance"). The third section is the scale of service quality based on Parasuraman et al. (1985, 1988), Haywood-Farmer (1998), and the expert views of the characteristics of value-oriented management in the banks. Hence, this study investigates consumers' perceived service quality using "reliability", "assurance" and "tangibles". The final section consists of the scale of customer satisfaction based on Oliver (1980), Patterson et al. (1997), as well as McKinney et al. (2002). Customer satisfaction was measured by total satisfaction with the bank.

Table 1. Descriptions of the constructs

Construct	Operational Definition	Source	Data collected from
Product quality	It is the degree of the fulfillment on the consumers' perceived financial product quality by sufficiency, fee rationality, and performance.	Garvin (1984) and industrial experts	Questionnaire
Service quality	It is the degree of the fulfillment on the consumers' perceived service quality by reliability, assurance, tangibles.	Parasuraman et al. (1985, 1988), Haywood-Farmer (1998) and industrial experts	Questionnaire
Customer satisfaction	It is an overall assessment of how products and services supplied by a company meet or surpass customer expectation.	Oliver (1980), Patterson et al. (1997), and McKinney et al. (2002)	Questionnaire
Customer contribution	There are two models: (1) customer value index (CVI) is a measurement of customer contribution to business benefits; and (2) fee income (FI) is total fee and commission incomes after the customers purchased the finance products.	CVI defined by Yang's (2003); FI defined by the banks in Taiwan	Data Warehouse
Customer assets	It mainly includes the customers' financial assets saved and invested in the financial institutions after subtracting the non-invested assets, such as private houses.	Bloomberg (2009)	Data Warehouse

After the return of the questionnaires, this study evaluated customer data and obtained the information related to customer contribution and customer assets from bank databases for calculation and analysis. The measurement of the contribution involved two models with further analysis. The first model was based on Yang's (2003) Customer Value Index (CVI) model. When the customers' CVI is close to 1, it means that the value is higher, and when it is close to 0, it means that the customers' value is lower. The equation 1 is shown below:

$$(1)\ \mathrm{CVI} = \sqrt{(\mathrm{W}_r \bullet R)^2 + (W_f \bullet F)^2 + (W_m \bullet M)^2}$$

where

W_r: Standard deviation of R (Recency).

W_f: Standard deviation of F (Frequency).

W_m: Standard deviation of M (Monetary).

The second model was based upon the industrial experts' opinions. These experts suggested that the Fee Income (FI) model was the most commonly used approach for the banks in Taiwan to calculate customer contribution to their finance businesses. FI is defined as total fee and commission incomes after the customers have purchased finance products. The equation 2 is given below:

(2) *FI = foreign fund fee + domestic fund fee + insurance commission + fee income of foreign currency multi-deposit.*

We first retrieved the asset data according to different categories of the customers and then divided all of their liquid assets in the case bank into deposit (including domestic and foreign currency current deposit, regular deposit, and so on) and investment (including domestic and foreign funds, synthetic structures, investment insurance, and so on). When calculating customer assets based on the criterion of the bank, each customer's daily average balances of the deposits in the most recent three months, initial investment amount of all investment products, and cumulative amount of insurance paid of investment insurance, were augmented to obtain each customer's assets. The operational definitions of all constructs are summarized in Table 1.

3.2 Pretest and pilot test

In order to avoid wrong answers due to misunderstanding the items, we conducted a pretest to evaluate the correctness and propriety of the terms and content of the questionnaire. The participants included two professors and three Ph.D. candidates in the Department of Management Information Systems and two experts in the banking industry to evaluate the questionnaire and give opinions. Two pilot tests were conducted, each including 35 targets of wealth management, with 29 and 30 valid questionnaires obtained, respectively. These individuals were asked to fill in the questionnaires and give their opinions of the content of the questionnaires. After the pretest and two pilot tests, 17 improper items were eliminated. Meanwhile, Cronbach's α exceeded 0.7 for all constructs, and factor loadings of the items all exceeded 0.5, demonstrating acceptable reliability and validity of the questionnaire.

3.3 Data collection

Stratified sampling is a procedural method to subdivide the population of interests into subgroups (e.g., strata) that share something in common based on criteria related to the assessment objectives (Kleinn, 2007). In other words, the purpose of stratification is to define homogeneous subgroups within a heterogeneous population for comparison and to increase the overall precision of estimates derived from the sample. Furthermore, marketing in the banks turns from business oriented to customer oriented, and the banks gradually differentiate HNWIs to develop one-to-one private banking business. Thus, we conducted stratification on the individuals who have purchased domestic and foreign funds, structure notes, investment insurance, or foreign currency multi-deposits in the case bank in the most recent 12 months.

Since this study focused on wealth management and customers' satisfaction with the substantial channels, it eliminated the customers who worked in the banks and those who had transactions only through an Internet bank in the past year. Accordingly, our targets are high-potential-value customers who had wealth transactions with the bank in the most recent year and those whose average deposit balances in the most recent six months exceeded NT$ 500,000 (about U.S. $16,666) based on industry standard in banking and based on industry standard in banking and tax brackets of individual income tax.

Data collection of the study included a questionnaire survey and bank databases. Based on the population density, the case bank divided 176 business bases into six regional centers. Since each transaction contains the processes of identification examination, we collected 500 samples from each of the six regional centers by stratified random sampling. This resulted in a total sample of 3,000 questionnaires. The questionnaires were numbered and contained the information that small gifts would be presented for the participants who returned valid questionnaires. After eliminating the invalid questionnaires with incomplete answers and fraud (for instance, gender and age did match the information in the bank's databases), we obtained 373 valid returned questionnaires. The valid return rate was 12.4%.

The samples collected by this study can be described as follows: a half of the customers were male [55.5%]. The respondents were mainly middle-aged people from 41 to 60 years old [56.3%], and most of them had above University degree [43.43%]. The annual income was NT$500,000-1,000,000 [41.29%]. The details were showed in Table 2.

Table 2. Demographic information of respondents (N=373)

Measure	Items	Freq.	Percent	Measure	Items	Freq.	Percent
Gender				Education	High school & below	117	31.37
	Male	207	55.50		College	94	25.20
	Female	166	44.50		University	113	30.29
					Graduate school	49	13.14
Age	< =20	10	2.68	Annual	<500,000	96	25.74
	21~30	40	10.72	income	500,000~1,000,000	154	41.29
	31~40	65	17.43		1,000,000~2,000,000	86	23.06
	41~50	110	29.49		2,000,000~5,000,000	35	9.38
	51~60	100	26.81		>5,000,000	2	0.54
	>61	4	12.87				

4. Data analysis

This study used SPSS version 10.0 to analyze the data using tests of reliability and validity, and multiple regression.

4.1 Reliability and validity

We first conducted an exploratory factor analysis with varimax rotation to assess the construct validity, including the convergent and discriminant validities (Table 3). The results indicated that the factor loadings of individual items all exceeded 0.5, as suggested by Hair et al. (1998). The reliability test also showed that the Cronbach's alpha of the constructs all exceeded 0.8, indicating a considerable level of internal consistency among the measurement items within each construct (Nunnally, 1978).

4.2 Study results and findings

This study adopted the method of first normalizing each variable and then using the variance inflation factor (VIF) to detect multicollinearity. Marquardt (1970) stated that a VIF greater than 10 indicates multicollinearity. Generally, VIF should be between 1 and 3, meaning that multicollinearity among variables is insignificant. Stepwise multiple regressions were conducted, and only the final models are reported here.

Table 3. Exploratory factor analysis (rotated)

Construct (Acronym; Cronbach's alpha)	Factor (Cronbach's alpha)	Item	Factor loading	Eigenvalue	Variance explained	Accumulated variance explained
Product Quality (PQ; α=0.860)	Sufficiency (α=0.790)	PQ2	0.860	2.354	26.161	26.161
		PQ1	0.856			
		PQ3	0.652			
	Fee rationality (α=0.840)	PQ4	0.872	2.179	24.209	50.370
		PQ5	0.860			
		PQ6	0.746			
	Performance (α=0.841)	PQ9	0.781	2.114	23.488	73.858
		PQ7	0.746			
		PQ8	0.652			
Service Quality (SQ; α=0.937)	Reliability (α=0.947)	SQ2	0.837	4.136	34.463	34.463
		SQ1	0.822			
		SQ4	0.813			
		SQ5	0.801			
		SQ3	0.796			
	Assurance (α=0.881)	SQ8	0.833	2.750	22.913	57.377
		SQ9	0.819			
		SQ7	0.673			
		SQ6	0.569			
	Tangibles (α=0.862)	SQ11	0.913	2.526	21.052	78.428
		SQ12	0.902			
		SQ10	0.665			
Customer Satisfaction (CS; α=0.928)	Customer Satisfaction (α=0.928)	CS1	0.953	2.622	87.412	87.412
		CS2	0.943			
		CS3	0.908			

4.3 Forecasting customer satisfaction through product/service quality

This study treated the factors of product quality and service quality as predictors of customer satisfaction. The results showed that the order of importance is service quality (β=0.625; p<0.01) and product quality (β=0.255; p<0.01). According to Table 4, this model has great explanatory power (R^2=81%). Furthermore, VIF is between 2.5 and 2.6, and thus multicollinearity is insignificant. Based on the above, H3a and H3b are supported.

Table 4. Regression of product/service quality and customer satisfaction

Model *Dependent variable:* *Customer satisfaction*	*β* coefficient	*t* value	VIF
Independent variables:			
Service quality	0.625	17.302***	2.557
Product quality	0.255	7.061***	2.555
R^2	0.812		
Adjected R^2	0.810		
F test	53.023***		

* p<.1; ** p<.05; *** p<.01

4.4 Forecasting customer contribution through product/service quality, customer satisfaction, and customer assets

First, this study treated the factors of product/service quality and customer satisfaction as predictors for customer contribution of CVI and FI. It was found that all factors are not included in the regression model. In other words, customer satisfaction does not significantly influence customer contribution. Thus, H1, H2, and H3c are not supported.

Moreover, since recently the banks determine the customer contribution using customer assets and further provide differentiation services and discounts, this study explored whether customer assets are a significant predictor of customer contribution of CVI or FI. According to the analytical result (Table 5), the explanatory power of customer assets for customer contribution of FI is 83.5% (β=0.914; p<0.01), while for customer contribution of CVI it is only 3% (β=0.182; p<0.01). Meanwhile, customer assets can positively and significantly influence customer contribution of CVI and FI. Thus, H4 is supported.

Table 5. Regression of customer assets and customer contribution

Model *Dependent variable*: *CVI*	*β* coefficient	*t* value	VIF
Independent variables:			
Customer assets	0.182	3.560***	1.000
R^2	0.030		
Adjected R^2	0.033		
F test	12.677***		
Model *Dependent variable*: *FI*	*β* coefficient	*t* value	VIF
Independent variables:			
Customer assets	0.914	43.389***	1.000
R^2	0.835		
Adjected R^2	0.835		
F test	71.577***		

*p<.1; ** p<.05; *** p<.01

5. Discussion

According to the analytical results above (summarized in Table 6), product quality and service quality seems to have low association with business profit, while they are significantly related to customer satisfaction. The results are consistent with Zeithaml and Bitner (1996), the main factor affecting customer satisfaction in the banking industry is service quality because of industry characteristics. In order to increase service quality, the banks should value the educational training for financial consultants, including the construction of the base of professional knowledge (including products and market) and introduction of customer-oriented asset arrangement and thus, the banks can precisely propose the investment suggestions and financial planning for the customers; secondly, the banks should enhance the quality of substantial facilities (e.g. decoration and atmosphere), so that the customers would enjoy them; finally, the banks should provide sufficient financial information to allow the customers to obtain what they need at any time. In addition, for further enhancing product quality, the banks should first value the diversity of products, information and services. They can not only continuously strengthen their production lines, but also develop completely customized products for HNWI, such as personal trust; secondly, the banks should enhance the investment performance of the financial products; finally, they should examine the rationality of the interaction between deposit or financial products and the customers from the customers' perspective.

Table 6. A summary of the support for the hypotheses

Hypothesis	Result
H1: Product quality positively influences customer contribution.	Not supported
H2: Service quality positively influences customer contribution.	Not supported
H3: Customer satisfaction positively influences customer contribution.	Partial support
H3a: The higher the product quality, the greater it is able to enhance customer satisfaction.	Supported
H3b: The higher the service quality, the greater it is able to enhance customer satisfaction.	Supported
H3c: The higher the customer satisfaction, the greater it is able to enhance customer contribution.	Not supported
H4: Customer assets can positively influence customer contribution.	Supported

The study results further reveal a different view of customer satisfaction from previous research, which has focused on total customer satisfaction and corporate profit (Anderson et al., 1994; Jones and Sasser, 1995; Reichheld, 1996; Anderson and Mittal, 2000). This study examined the direct impact of customer satisfaction on customer contribution. The different view is that satisfied customers may not contribute more. There are other factors that can affect customer contribution. Nowadays, many banks tend to provide a greater variety of services, preferential treatments (e.g., wine tasting), or social training for financial consultants to serve satisfied customers. However, based on the study results, banks should be aware that it is not sensible to put great effort into service excellence without paying attention to customer attributes. In a severely competitive market, other factors, such as the business cycle, customer lifetime value, and social interaction between individuals, can affect customer decisions as well. Customer satisfaction has become an essential factor, but it is not the only factor for increasing customer value.

The findings of this study also demonstrate that customer assets are significantly and positively related to customer contribution, by both CVI and FI models. Based on different customer asset levels, banks would need to invest more in providing suitable services and products to increase their contribution. The reason is that the customer assets consist of customers' liquid assets saved in the bank and can be regarded as investment funds or customer's ability to contribute. With more funds in the account, the customer tends to have more interaction with the account manager of the bank. These interactions, which include teller transactions, financial consultations, Internet bank access, telebanking contacts, or ATM processes, can lead to more spending of all kinds. Customer satisfaction factors such as production and service quality have become the basic element of the transaction. Contemporary banks will need to understand deeply the impact of customer attributes on their buying behavior in order to deliver customized services to different categories of customers. For example, high-asset customers usually are older and more concerned about the experience of their interaction with the banks. The bank could offer more low-risk and quick-return products to this kind of customer through a more personal and reliable approach. Conversely, low-asset customers, who may manage and invest their wealth via the Internet, are younger and care more about the costs and benefits of the products. Service and product differentiation has become a critical part of managing customer satisfaction.

6. Conclusion

This study explores customer contribution by examining the direct impact of product/service satisfaction and customer attributes on individual spending. We analyzed two kinds of customer contribution models, CVI and FI, using customer data from a selected bank. The results showed that the positive relationship between customer satisfaction and customer contribution is insignificant. This finding is consistent with Garland (2002), who studied the banking industry and found that satisfied customers probably do not have high contribution, with an enhanced finding regarding the influential factor of customer attributes. In a severely competitive environment, a bank cannot simply focus on the improvement of customer satisfaction or treat customer satisfaction as the key indicator for corporate profits. The focus of resource investment should not be focused on general matters of customer contact such as corporate image, office environment, call center upgrades, and operational capacity, but should be dispersed into development of product and services of different segments.

Due to the limitation of manpower, resources, and laws, this study only explores the direct effect of customer satisfaction on their contribution. Extended studies should investigate different customer behaviors by examining other financial indicators such as long-term investment and customer lifetime value. In addition, since fluctuations in the macroeconomic environment can influence customer satisfaction and purchase behavior, future studies should include more factors in exploring the correlation between customer satisfaction and customer contribution.

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Appendix - Questionnaire

Product Quality

PQ1. The bank can offer a variety of the financial products (such as domestic and foreign funds, investment insurance, regular deposit, etc.) with my freedom of choice.
PQ2. The bank can offer the financial products that I want.
PQ3. The bank can offer tailor-made financial products for me according to my needs.
PQ4. For me, the fees charged to the fund products of the bank are acceptable.
PQ5. For me, the bank offers reasonable fund fees.
PQ6. When I deal with the redemption of foreign funds, the bank gives me a reasonable exchange rate.
PQ7. For me, investing in the bank's financial products has often made me a profit.
PQ8. Compared with other banks, I gain higher profits by investing in the bank's, with the same or similar financial products.
PQ9. Compared with investing in stocks, the risks are generally lower by investing in the bank's financial products.

Service Quality

SQ1. For me, financial consultants of the bank have adequate professional knowledge.
SQ2. The financial consultants of the bank are well aware of their financial products.
SQ3. The financial consultants of the bank can recommend asset allocation based on my investment properties.
SQ4. The financial consultants of the bank consider my needs rather than their performance.
SQ5. The financial consultants of the bank can analyze the risks and benefits of financial products fairly and objectively.
SQ6. When the customer rights and interests are being changed, the bank will immediately inform the customer.
SQ7. The platform of the bank provides a variety of market information, so I can make investment decisions easier.
SQ8. The bank can provide real-time market information and international trends as my reference for investment decisions.
SQ9. The bank often lets customers know about the latest information of financial products.
SQ10. For me, hardware facilities (such as computers and printers, etc.) in the finance and investment area of the bank accord with my expectations.
SQ11. For me, the finance and investment area of the bank is comfortable.
SQ12. I like the decoration and atmosphere of the finance and investment area in the bank.

Customer Satisfaction

CS1. I am satisfied with the financial products of the bank.
CS2. I am satisfied with the financial services of the bank.
CS3. Overall, I am satisfied with the bank.