



VISI

Volume 19

Nomor 2

Juni 2011

Carbon : Nitrogen Ratio as Control Element in Shrimp Culture
Pohan Panjaitan

The Relationship between Perceived Customer Satisfaction and
Customer Loyalty in Service Firms.
Charles Makmur Sianturi

Percepatan Pemulihan Kesehatan Lahan untuk Meningkatkan Produktivitas
Tanah dan Membangun Kemandirian Pangan di Indonesia
Ferisman Tindaon dan Tualar Simarmata

A Correlation Between Students' Mastery of Past Tense
and Their Achievement in Writing Recount
(The Case of the EC 4 Students of YPPIA Medan in 2010)
Barli Andrian Tambunan

IbM Pemberdayaan Kaum Perempuan di Desa Tapian Nauli I Melalui
Aplikasi Teknologi Pengolahan Rumput Laut
Hotman Manurung, Rosnawya Simanjuntak

Optimasi Jaringan Penghubung antar Sentral pada
Digital Multi Exchange Area
Jamsar Simanjuntak

Perancangan Radio Link Kampus UHN Medan ke Sibolangit untuk
Teknologi Komunikasi Analog
Libianko Sianturi

Content Management System (CMS)
Darwis Robinson Manalu



VISI

Volume 19

Nomor 1

Pebruari 2011

<i>Pohan Panjaitan</i>	Carbon : Nitrogen Ratio as Control Element in Shrimp Culture	495 - 507
<i>Charles Makmur Sianturi</i>	The Relationship between Perceived Customer Satisfaction and Customer Loyalty in Service Firms.	508 - 522
<i>Ferisman Tindaon dan Tualar Simarmata</i>	Percepatan Pemulihan Kesehatan Lahan untuk Meningkatkan Produktivitas Tanah dan Membangun Kemandirian Pangan di Indonesia	523 - 532
<i>Barli Andrian Tambunan</i>	A Correlation Between Students' Mastery of Past Tense and Their Achievement in Writing Recount (The Case of the EC 4 Students of YPIIA Medan in 2010)	533 - 538
<i>Hotman Manurung, Rosnawya Simanjuntak</i>	IbM Pemberdayaan Kaum Perempuan di Desa Tapian Nauli I Melalui Aplikasi Teknologi Pengolahan Rumput Laut	539 - 547
<i>Jamser Simanjuntak</i>	Optimasi Jaringan Penghubung antar Sentral pada Digital Multi Exchange Area	548 - 565
<i>Libianko Sianturi</i>	Perancangan Radio Link Kampus UHN Medan ke Sibolangit untuk Teknologi Komunikasi Analog	566 - 580
<i>Darwis Robinson Manalu</i>	Content Management System (CMS)	581 - 591

The Relationship between Perceived Customer Satisfaction and Customer Loyalty in Service Firms.

Charles Makmur Sianturi

ABSTRAKSI

Studi ini mengkaji hubungan dua konstruk yaitu kepuasan konsumen dan loyalitas konsumen dengan menggunakan analisis Structural Equation Modeling (SEM). Analisis kajian diawali dengan melakukan Analisis faktor untuk menentukan dimensi dari konstruk kepuasan konsumen dan konstruk loyalitas konsumen. Sampel riset ini adalah konsumen dari enam perusahaan servis di Medan yang terdiri dari perusahaan yang dominan servis dan perusahaan yang menawarkan kombinasi servis dan barang. Hasil analisis data menunjukkan bahwa konstruk kepuasan konsumen terdiri dari tiga faktor dan konstruk loyalitas konsumen mempunyai tiga faktor. Berdasarkan koefisien Chi-square, GFI, CMIN/DF, TLI, RMSEA, menguatkan bahwa model yang diajukan cukup memadai untuk menjelaskan hubungan antara kepuasan konsumen dan loyalitas dan faktor-faktor yang paling berpengaruh pada hubungan antar kedua-dua konstruk tersebut.

Keywords : Customer Satisfaction, Customer Loyalty.

1. Introduction

The concept of customer satisfaction is very important for every business in the present days. In the high competitive of business many companies have deployed customer satisfaction as a business strategy to increase their performance and at the same time to maintain loyal customers.

It is to believe that satisfied customers are the loyal customers. The loyal customers will involve in repeat purchasing from the same company, carried out continuous transaction, spread word-of-mouth, and will recommended the company's product to others, while dissatisfied customer will put the "burden" to the firm by unprecedented behavior such as stop buying from the firm, defected to other service providers or competitors.

Many studies have been carried out to explain how to satisfy the customers (Oliver, 1980; Churchill & Surprenant, 1982; Bearden & Tell, 1983). But many of previous studies on customer satisfaction have focused more on measuring customer satisfaction (Peterson & Wilson, 1992); and cognitive process (LaBarbera & Mazursky, 1983), or antecedent of customer satisfaction (Oliver, 1980).

Customer loyalty constitutes an underlying objective for strategic market planning (Kotler 1992) and represents an important basis for developing a sustainable competitive advantage (Dick and Basu 1994). Lovelock and Wright (2000) have defined customer loyalty as a customer's voluntary decision to continue patronizing a specific firm over an extended period of time.

Service loyalty is more dependent on the development of interpersonal relationships as opposed to loyalty with tangible product, for person-to-person interactions form an essential element in the marketing of service (Czepiel,1990). In the service context, intangible attributes such as reliability and confidence may play a major role building or maintaining loyalty (Dick& Basu 1994). Furthermore, the influence of perceived risk is greater in the case of services, as customer loyalty may act as barrier to customer switching behavior (Zeithaml1981).

Traditionally, the researchers on customer loyalty are focused on the behavioral considerations. Customer loyalty is measured and defined based on the number of repeat purchase for a certain period of time. Subsequently, most of the studies were focused on loyalty measurement or the relationship between customer loyalty with customer segmentation characteristics such as income, age, family size and personality.

Measuring customer loyalty based solely on patronized behavior such as repeat purchase seems insufficient to explain the process of customer loyalty. Many researchers have attempted to find out the dimensionality of underlying factors that affected customer loyalty (Boulding, et al.,1993; Dick & Basu, 1994; Zeithaml, et al., 1996; Bloemer,et al.,1999).

The purpose of this study is find out the dimensions of customer satisfaction and customer loyalty factor and to investigate the relationship between customer satisfaction and customer loyalty and also to find out dimensions of both constructs. In other words this research will explain the antecedent and consequences of customer satisfaction, and customer loyalty simultaneously.

2. Literature review and theoretical approach.

2.1. The Conceptualization of Customer Satisfaction on Service.

Service definition can be formulated from many perspectives and several other definitions basically have been formulated for certain purposes of analysis. Most services are multidimensional and some are quite complex, being composed of numerous different elements (Lovelock,1996). By any definition, service is a process or the activities that are carried out, whereas goods are objects that can be measured objectively. Services are samples of performance that comprise objects and mind or feeling. It is generally agreed that services are different from goods due to the unique characteristics; intangibility, heterogeneity, inseparability of production and consumption, and perishable (Zeithaml & Bitner, 1996;; Bateson & Hoffman, 1999)

It is mostly accepted that the fundamental difference between goods and services is service intangibility that made service untouched or intangible, tasted or smelled. Berry (1980) captures the distinction well when he describes a good as "an object, a device, a thing", in contrast to a service which is "a deed, a performance, an effort".

Customer satisfaction is a central concept in marketing and the study of customer satisfaction is mainly an attempt to explain the determinant of customer satisfaction. Understanding the process of customer satisfaction formation has been a concern of marketing researchers and practitioners alike. Many definitions have been formulated for certain purposes. Some experts considered customer satisfaction as related to specific transaction (Bolton and Drew 1991). Bitner and Hubbert (1994) made distinctions between service encounter satisfaction and overall service satisfaction. McNeal (1982) defines consumer satisfaction as the extent to which a purchase meets certain needs and resolves a broader mental state, allowing the consumers to return to a position of being ready to deal with other life matters. Customer satisfaction definition varies, but experts mostly agree that satisfaction is post consumption evaluation. It means that satisfaction is a post consumption experience evaluation. Therefore is no satisfaction evaluation without experience of consumption.

Customer satisfaction has two types of definitions which differ in terms of emphasis. The first definition defines customer satisfaction as an outcome of consumption. The second definition explains customer satisfaction as a cognitive process (Oliver, 1980; Rust & Oliver 1994; Churchill & Surprenant, 1982). Oliver's (1989) framework views satisfaction as a state of fulfillment related to reinforcement and arousal. The study by Oliver (1980) on the antecedent and consequences of satisfaction has provided empirical support for several theoretical determinant of customer satisfaction. This approach is known as expectancy disconfirmation paradigm. When service performance exceeds initial expectations, it means that positive disconfirmation occurs. When service performance equals or matches the expectation confirmation occurs. Negative disconfirmation occurs when service performances fall short of initial expectations.

Some researchers suggested disconfirmation is the predictor of customer satisfaction formation (Westbrook 1987; Codotte, et al., 1987). Others suggested that performance is the predictor of customer satisfaction (Liljander & Strandvik, 1994).

Another researcher reported that disconfirmation and performance were both affected satisfaction formation (Tse & Wilton; 1988). Oliver & DeSarbo (1988) found that disconfirmation and performance were both positive predictor of satisfaction but disconfirmation had the greatest influence.

Halstead, et al., (1994) developed a model to explain satisfaction formation with multi-resources of satisfaction and found that performance and disconfirmation have different effects on satisfaction formation. Churchill & Surprenant (1982) investigated the effects of performance and disconfirmation for two different products; video disc player and household plant. The results reported that disconfirmation and performance were both positively related to satisfaction for the plant, but disconfirmation had the greatest effect. Expectation were also positively related to satisfaction both directly and indirectly through

disconfirmation. As for video disc player, only performance had a significant positive impact on satisfaction.

The most widely adopted of the process theories is that of expectancy disconfirmation, in which customer satisfaction is viewed as largely based on meeting or exceeding expectation (Yi, 1990). As was noted earlier, Churchill & Suprenant (1982) found that performance had a significant impact on satisfaction for some product, but not others. Tse & Wilton (1988) found that performance had a significant direct effect on satisfaction as well as indirect effect through disconfirmation. Oliver & DeSarbo (1988) found that disconfirmation had the greatest influence on satisfaction, although significant effects were found for performance.

Due to the conflicting models in an attempt to explain determinant factors of customer satisfaction, many experts suggested an alternative for measuring of customer satisfaction. Theoretical support can be found for including perceived performance as a determinant of customer satisfaction (Halstead, et al., 1994; Tse & Wilton 1988). They argued that customer expectations for certain services are such that the commonly accepted disconfirmation paradigm may not apply.

Performance evaluation is based on service attribute approach. Some researchers used single attribute approach, such as overall satisfaction evaluation and others used multi-attributes approach. A multi-attribute approach to performance evaluation has been recommended by several researchers (Swan & Comb, 1976).

Woodruff, et al., (1983) suggested using a traditional multi-attribute model approach by summing up attribute importance ratings times attribute performance over all salient attributes to develop an assessment of performance. Oliver (1980) concluded that disconfirmation ultimately takes place at individual attribute level. Still, several satisfaction researchers continue to use overall measures of performance or disconfirmation (Cronin & Taylor 1992; Tse & Wilton 1988; Oliver & DeSarbo 1988; Woodruff, et al., 1983).

As was noted earlier, multi-attribute model provided more explanation of customer satisfaction formation instead of single attribute. Lele & Sheth (1988) stated that a variety of factors affects customer satisfaction. Quality, for instance, is a key influence; buyers regularly show quality at the top of their concerns. Zahorik, et al., (2000) argued that overall satisfaction is in turn determined by satisfaction with various components, or 'process' of the service.

In this study, measurement of customer satisfaction formation is based on perceived performance of multi attributes of services. Many factors would affect customer perception of service performance.

2.2. Customer Loyalty.

Customer loyalty constitutes an underlying objective for strategic market planning and represents an important basis for developing a sustainable competitive advantage (Dick & Basu 1994). Lovelock & Wright (2000) have

defined customer loyalty as a customer's voluntary decision to continue patronizing a specific firm over an extended period of time.

Czepiel & Gilmore (1980) suggested that service loyalty is unique due to the characteristics of the service. Since goods and services are different in nature, Keaveney (1995) suggested that there are a number of reasons why the findings in the field of brand loyalty cannot be generalized to service loyalty. Service loyalty is more dependent on the development of interpersonal relationships as opposed to loyalty with tangible product, for person-to-person interactions form an essential element in the marketing of service (Czepiel 1990). Traditionally, the researchers on customer loyalty are focused on the behavioral considerations. Customer loyalty is measured and defined based on the number of repeat purchase for a certain period of time. Subsequently, most of the studies were focused on loyalty measurement or the relationship between customer loyalty with customer segmentation characteristics such as income, age, family size and personality.

Jacoby and Chestnut (1978) criticized these behavioral measures as lacking conceptual basis and capturing only the static outcome of a dynamic process and behavioral definitions and are also insufficient to explain the process of customer loyalty is developed or modified.

Measuring customer loyalty based solely on patronized behavior such as repeat purchase seems insufficient to explain the process of customer loyalty. Many researchers have attempted to find out the dimensionality of underlying factors that affected customer loyalty (Boulding, et al., 1993; Bloemer, et al., 1999).

Dick and Basu (1994) attempted to capture the understanding of the factor underlying repeat purchase by proposing an alternative approach called relative attitude. The authors suggested that customer loyalty is affected by attitudinal and non attitudinal considerations. Attitudinal considerations are viewed as determinant of customer loyalty and non-attitudinal consideration viewed as moderator of loyalty. The key to their model is the conceptualization of loyalty as the relationship between relative attitude toward an entity and patronage behavior. Their investigations include antecedents and consequences of customer loyalty based on attitudinal considerations.

With regards to behavioral intentions in a service setting, Zeithaml, et al., (1996) proposed a comprehensive, multi-dimensional framework of customer behavioral intention in services. The framework was initially comprised of four dimensions of customer loyalty; word-of-mouth, purchase intention, price sensitivity, and complaining behavior. For the purposes of their study, all dimensions were measured with a 13-item scale, deployed factor analysis and five dimensions of behavioral intentions were identified. The first dimension is loyalty to company. Loyalty to the company is characterized by saying positive things about the company to other people, recommending the company to someone who seeks some advice, encouraging friends and relatives to do business with the company, considering the company as the first choice for needed services, and

doing more business with the company in the future. The second dimension is propensity to switch. The characteristic of propensity to switch is to do less business with the current company and take some business to a competitor that offers better prices.

The third dimension is willingness to pay more. A loyal customer is supposed to be willing to pay higher price than another competitor charges for the benefits customers currently receive. Loyal customers are also expected to continue business with the company even if its prices increase somewhat. The fourth dimension is external response to problems. The behavioral intentions experience problem with the company's service are complained to the third party such news papers, other customers, external agencies or switch to another competitor. The fifth dimension is internal response. Intention behavior of customers when they experienced problems was complained to the company's employees.

This study try to find out the factor that underlying customer behavior by applying modified behavioral-intentions battery of Zeithaml et al.,(1996).

3.1 Research Design and Methodology.

This study attempts to investigate the relationship of customer satisfaction and customer loyalty. Satisfaction is defined as primarily an affective response to a specific consumption experience (Linder-Pelz 1982). Customer loyalty is a customer's voluntary decision to continue patronizing a specific firm over an extended period of time (Lovelock & Wright 2000)

3.1.1 Survey Design

Conceptualization of customer satisfaction and customer loyalty is measured directly by using survey method. After three times of test and modification final questionnaires are fixed in the Bahasa Indonesia.

3.1.2 Sampling and Data Collection.

According to the objectives of the study the type of sampling is a judgement sampling method and the sampling technique on this study is opportunity sampling. Opportunity sampling technique uses whatever participants are available at the time the research is being conducted. Although this technique is the least desirable because it is the most open to bias and distortion, but in practice, it is used by great many researches (Hayes 2000).

The subject of the study is the consumers of six of service producers, regardless of their individual characteristics. The service producer samples range from service dominant products (pure intangible) to the less service dominant products (more tangible). The service producers are Banks, Fast food Restaurants, Cell Phone Operators, Hospitals, Department Stores, and Consumer Goods Credit Companies in Medan.

3.2 Methodology.

3.2.1 Factor Analysis.

Factor analysis is used to investigate the underlying dimensions of construct customer satisfaction and customer loyalty. The interpretation of the factor is based on rotated component matrix. The VARIMAX rotation of factor solution with Kaiser normalization is deployed on this survey. All variables or items with loading factor 0.40 or greater will be included in the factor. According to Hair, et al, (1998) loading of 0.40 is considered more important and loadings of 0.30 are considered to meet the minimum level.

To determine the number of factors extracted from the data is based on the Eigenvalue. The factor with Eigenvalue equal to one or greater (≥ 1) would be considered as a factor. Item-scale reliability is based on the score of Cronbach Alpha. The alpha value of 0.70 or greater is considered reliable (Nunnally 1977).

In general and based on the objectives of the study the research consists two constructs, that is, customer satisfaction (CS) and customer loyalty (CL). Factor analysis will be deployed to find the underlying dimensions of each construct using SPSS Win 11.0.

To explain the significance of the relationship among the constructs structural equation modeling (SEM) will be applied by using statistics package AMOS 4.0 (Analysis of MOment Structure).

The current study uses explanatory factor analysis to analyze construct validity of the proposed model geared to identify the underlying evaluative dimension of constructs or factors with VARIMAX rotation factor solution. The analysis will ascertain that the dimensions of the construct are based on the items of the questionnaire. All variables with loading factor 0.40 or greater will be included in the analysis and regarded as significant.

3.1.2 Structural Equation Modeling Analysis

Next, all dimensions will be transformed as indicators and used as input for the Structural Equation Modeling of the research model (SEM) to explain the relationship of the constructs. SEM is a multivariate technique combining aspects of multiple regression (examining dependence relationship) and factor analysis (representing unmeasured concepts –factors- with multi-variables) to estimate a series of interrelated dependence relationship simultaneously in a single model. (Hair, et.al.1998). At this stage the hypothesis will be tested. To check the model fit some statistical indexes of fit are used. The indexes are Chi-square, CMIN/DF, GFI, AGFI, NFI, TLI, RMSEA. The most fundamental measure of overall fit is likelihood- ratio chi-square (Hair,et al.1998). A large value of chi-square relative to the degree of freedom signifies that observed and estimated matrices differ considerably. Statistically significance levels indicate the probability that these differences are due solely to sampling variation of the model. CMIN/DF is the minimum discrepancy, \hat{C} .

Goodness-of-fit Index (GFI) represents the overall degree of fit (the squared residuals from prediction compared with the actual data, but it is not adjusted for the degree of freedom) (Hair, et al. 1998). The GFI is a non-statistical measure ranging in value from 0.00 (poor fit) to 1.0 (perfect fit). Higher values indicate better fit but no absolute threshold levels for acceptability have been established. AGFI or adjusted goodness-of-fit index is an extension of GFI, adjusted by the ratio of the degree of freedom for the proposed model to the degree for the null model. Acceptance level is greater or equal to 0.90.

NFI or Normed fit index is a relative comparison of the proposed model to the null model. It is a measurement range from 0.00 (not fit at all) to 1.0 (perfect fit). Recommended level is 0.90 or greater. TLI or Tucker-Lewis Index also known as non-normed fit index (NNFI) combines measure of performing into a comparative index between the proposed and null model, resulting values ranging from 0.00 to 1.0. The recommended level is greater or equal to 0.90. Root Mean-Square Error Approximation or RMSEA is the discrepancy per degree of freedom. The discrepancy is measured in terms of population, not just the sample used for estimation. Values ranging from 0.05 to 0.08 are deemed acceptable.

4. Data Analysis

Two different types of analysis have been performed in this study. The first is the analysis factor to find out the dimensions of the constructs; customer satisfaction, and customer loyalty. The analysis factor is followed by the reliability test of the questionnaires for each construct.

The number of returned questionnaires is 207 copies of 300 questionnaires distributed, and the number of usable copy is 137, which become the sample size of this survey or 137 respondents.

4.1. Dimension of Customer Satisfaction Construct

Measurement of customer satisfaction is based on the attributes of service perceived by customers. Measurement of customer satisfaction has 16 items. When all items included in the analysis factor there is no specific pattern derived that make the interpretation of results difficult. Using add and drop method for each item, finally three dimensions can be extracted which consist of ten items but some items have loadings in more than one dimension. The total variable explained by the three factors is 64 %. The results of the analysis factor for overall data are exhibited on the Table 4.1 Loading factor of each item is greater than 0.40. Coefficient alpha or Cronbach Alpha for the first dimension is 0.6932, for the second dimension is 0.7367, and alpha for the third factor is 0.8126, and the total reliability is also high (0.8415). The first dimension called service accessibility (Servaccess) has 4 items; Cs1, Cs 2, Cs 5, and Cs 6. The second dimension entitled perceived price contains 3 items; Cs7, Cs8, and Cs 14. Item Cs9, Cs 10, and Cs 12 are grouped into the third dimension named service atmosphere (Servatm). (See Figure 4.1).

Table 4.1. Factor Loadings of Customer Satisfaction Construct

Dimension	Label	No.of Items	Items	Factor Loading			Coefficient Alpha
				1	2	3	
Servaccess	CS1	4	Cs1			.706	.6932
			Cs2			.744	
			Cs5		.540	.584	
			Cs6		.570	.553	
Perceived Price	CS2	3	Cs7		.758		.7367
			Cs8		.766		
			Cs14	.401	.510		
Servatm	CS3	3	Cs9	.792			.8126
			Cs10	.770			
			Cs12	.790			
All Items							.8415

4.2. Dimensions of Customer Loyalty Construct.

In this section, the result of dimension of customer loyalty analysis will be presented. The construct of customer loyalty contains 13 items of questionnaires. When all items are included in the analysis, no specific pattern of dimension can be identified. Therefore, in the analysis add and drop methods of each item are used to find out the dimension.

The Table below displays the results of the analysis factor of all cases. The table indicates that three dimensions of customer loyalty can be introduced based on 11 out of 13 items. After examining the items, each dimension can be labeled as repurchase, recommend, and tolerant. The result of factor analysis also shows that all factor loadings are greater than 0.4, and each item assigned to each dimensions has high loading on only one of the three factors extracted.

The loading indicates that each item has a strong correlation to its respective factor. Besides loading, factor coefficient alpha or reliability coefficient for each factor also is also displayed. The total coefficient alpha is close to 0.8, and the values of these coefficients of the components are relatively high except of the second factor (Recommend), which is relatively moderate. Furthermore, the factor explained is close to 0.63 percent of total variance.

Table 4.2. Factor Loadings of Customer Loyalty Construct

Dimension	Label	No. of Items	Items	Factor Loading			Coefficient Alpha
				1	2	3	
Repurchase	CL1	5	C11	.784			.8627
			C12	.807			
			C13	.771			
			C14	.796			
			C16	.716			
Recommend	CL2	3	C18			.726	.5641
			C19			.746	
			C113			.699	
Tolerant	CL3	3	C110		.715		.7415
			C111		.790		
			C112		.810		
All Items							.7974

4.3. The Relationship between, customer satisfaction and customer loyalty.

4.3.1. Causality Effects between the Constructs.

This chapter discusses the result of the analysis of structural equation model (SEM) for this study. SEM is applied to explain the causality relationship between customer satisfaction and customer loyalty simultaneously in a single nonrecursive model (see Figure 4.1)

The explanations of the causality effects relationship between customer satisfaction and customer loyalty are based on the coefficients of path of construct relationship, direct effects, indirect effects, and total effects of the relationship among the constructs. Explanation starts from the findings of overall data and continues to each of the service industry sample. Each construct has three indicators and the relationship among the constructs and their respective indicators are discussed based on their standardized coefficients. The indicators of customer satisfaction are service accessibility (Servaces), perceived price (Perceprice), and service atmosphere (Servatm), and for customer loyalty (CL) are Repurchase, Recommended, and Tolerant.

The general theoretical framework proposed by Lazarus (1991) and extended by Bagozy (1992) as appraisal → emotional → coping can be applied to help explain the causality effect relationship between customer satisfaction, and customer loyalty.

Customer satisfaction is also a construct that consists of multiattributes. And contains many different sub-attributes.

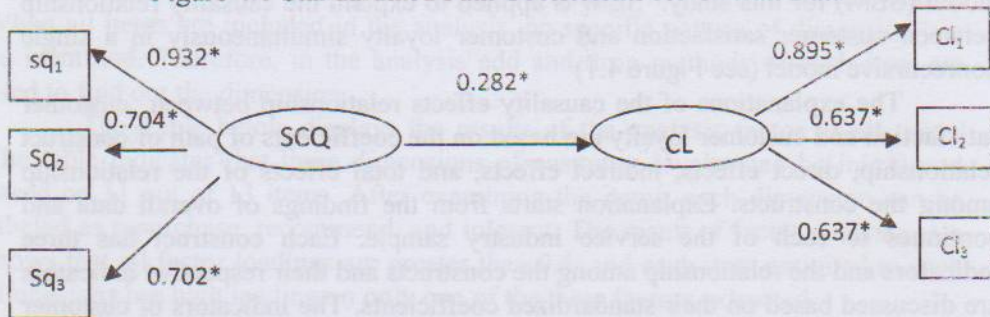
4.3.2 Findings of Overall Data.

The fit indexes of the model suggest the model is reliable to explain the relationship of perceived service quality, customer satisfaction, and customer loyalty. All coefficients of estimation are significant which also suggest that the measurements are highly consistent. The results of the analysis of over overall data are displayed next on Figure 4.1.

The findings suggest that perceived service quality affects both customer satisfaction and customer loyalty. The findings also indicate that both perceived service quality and customer satisfaction affect customer loyalty but the magnitude of the relationship is different. Path coefficients show that the relationship between perceived service quality and customer satisfaction is more significant than that of relationship between perceived service quality and customer loyalty. The relationship between customer satisfaction and customer loyalty is more significant than that the relationship between perceived service quality and customer loyalty.

The relationship between constructs and their respective indicators are also significant. Of the three indicators of perceived service quality, the relationship between perceived service quality and reliability is more significant compared to those of other two indicators; service technology and compliance. Service reliability reflects the ability to deliver promised service and fulfill the needs and wants of customers for services in their preferred ways.

Figure 4.1 Standardized Path Coefficients for Overall Data



Legend : * Statistically significant at 0.05.

- Cs1 = Service Accessibility C11 = Repurchase
- Cs2 = Perceived Price C12 = Recommended
- Cs3 = Service Atmosphere C13 = Tolerant

The results also explain that the contribution of repurchase to the customer loyalty is more significant compared to those of recommended and tolerant.

As for customer satisfaction accessibility of service, it is more significant followed by perceived price and service atmosphere. Service accessibility is related to customer involvement in service production and sharing information between customers and service providers. Besides the customers' willingness to pay the price they also want to know what is going on with their service provider.

It may be related to the nature of services. In many service production processes, customers are co-producers who provide the service producers with some inputs. Many service outputs are dependent on the type of inputs provided by the customers. Customers want to get what they look for and receive what they asking for. The price of service is less significant when customers perceive prices are fair to the benefit of services they received and indifferent so much with other service providers.

4.3.3 Goodness-of-Indices of Estimation.

Goodness-of-fit indices related to model estimation are displayed in Table 4.3.3 The table explains that the coefficients of estimation are fit for the criterion of the indices.

Table 4.3.3 Model Fit Indices of Overall Data Estimation

Index	Cut-off Value	Result	Note
Chi-square	Larger	104.163	Fit
CMIN/DF	< 2.0	4.340	Reasonable
GFI	≥ 0.90	0.970	Fit
AFGI	≥ 0.90	0.944	Fit
NFI	≥ 0.90	0.960	Fit
TLI	≥ 0.90	0.953	Fit
RMSEA	≤ 0.08	0.067	Fit

Only one index, the value of CMIN/DF, does not satisfy the cut-off value of less than two (<2.00), but less than five (< 5.00) is still reasonable (Marsh and Hocevar, 1985). Therefore, the model of estimation is adequate.

5. Conclusions and managerial implication

5.1. Research Conclusions.

The findings of analysis factor of customer satisfaction construct disclose three dimensions of customer satisfaction. They are service accessibility, perceived price, and service atmosphere. The application of factor analysis of six service industry samples exhibits that similar dimensions are founded. Statistically speaking the reliability of all dimensions is pretty high.

Factor analysis of overall data of customer loyalty construct reveals that three dimensions can be identified. The application of factor analysis to six service industry samples shows that similar dimensions are also confirmed. Dimensions of customer loyalty are labeled repurchase, recommended, and tolerant respectively.

Reliability analysis reveals that not all dimensions have high reliability although all items are high. The reliability of the first and the third dimension of l data are high but the second dimension has low reliability

The results of application of structural equation modeling (SEM) analysis to non-recursive relationships between the constructs display that the relationships between the constructs are significant. Customer satisfaction is an antecedent of customer loyalty

5.2. Research Implication and Limitations.

The results of this study offer a direction for the future research into the effects of construct of customer satisfaction on customer loyalty. Since the subject of this study is various service industry providers, researchers should examine more thoroughly whether specific service industry characteristics or specific product characteristics may have effects on consumer evaluation of services, or other factors that may be take effects on the relationship..

5.3. Managerial Implication.

Customers are an invaluable asset of the company as proclaimed by the loyalty program supporters. Despite the high cost of the programs, companies are investing in customer satisfaction strategy and customer loyalty programs. The results are varied across the companies and for better or worse no one expert can explain why. Many experts and marketing practitioners treat customer satisfaction and customer loyalty as an independent variable or construct and pay less attention to their interrelationship.

The current study finds that these constructs are related to each other significantly in a causality effect relationship. Understanding the relationship among these constructs better business policy or strategy can be formulated with predictable consequences.

Attribute level evaluation provide management and marketing practitioners which attributes of services needed improvement or contributed more or not contributed at all to customer satisfaction or to customer loyalty.

REFERENCES

- Anderson, Eugene W., Claes Fornell, and Donald R. Lehmann (1994), "*Customer Satisfaction, Market Share, and Profitability: Findings from Sweden*". *Journal of Marketing* 58 (July), 53-66.
- Asuboteng, Patrick, Karl J. McCleary, and John E. Swan (1996), "*SERVQUAL Revisited: A Critical Review of Service Quality*". *Journal of Services Marketing* 10, 62-81.
- Bagozzi, R.P. (1992), "*The self-regulation attitudes, intention, and behavior*", *Social Psychology Quarterly*, 55, 178-204.
- Bateson, John E.G., and K. Douglas Hoffman, (1999), "*Managing Services Marketing*", The Dryden Press, Hinsdale IL 60521, USA.

- Berry Leonard L. (1980), "*Service Marketing is Different*", Business, May- June, 1980.
- Bitner, Mary Jo, and Amy R. Hubbert, (1994), "*Encounter Satisfaction versus Quality: The Customer's Voice*", in *Service Quality New Directions in Theory and Practice*. Eds. Roland T. Rust and Richard L. Oliver, SAGE Publications, Thousand Oak, USA.
- Bolton, Ruth N., P. K. Kannan and Matthew D. Bramlett (2000), "*Implication of Loyalty Program Membership and Service Experiences for Customer Retention and Value*". *Journal of the Academy of Marketing Science* 28 (No. 1), 95-108.
- Churchill, Gilbert A., and Carol Suprenant (1982), "*An Investigation into the Determinants of Customer Satisfaction*". *Journal of Marketing Research* 29 (November), 491-504.
- Czepiel, John A., Congram, Carole A., Shanahan, James, (Eds) (1987), "*The Services Challenge: Integrating for Competitive Advantage*", AMA Proceeding Series, Chicago, Illinois, USA.
- Dick, Alan S., and Kunal Basu (1994), "*Customer Loyalty: Toward an Integrated Conceptual Framework*". *Journal of the Academy of Marketing Science* 22 (No. 2), 99-113.
- Gotlieb, Jerry B., Dhruv Grewal, and Stephen W. Brown (1994), "*Consumer Satisfaction ad Perceived Quality: Complementary or Divergent Construct?*". *Journal of Applied Psychology* 79 (No. 6), 875-885.
- Hair, Jr, Joseph F., Rolph E. Anderson, Ronald L. Tatham, and William C. Black (1998), "*Multivariate Data Analysis*" Prectice-Hall, International, Inc. New Jersey, USA.
- Jacoby, J. and Chestnut, R.W. (1978), "*Brand Loyalty: Measurement and Management*". John Wiley & Sons, New York, NY.
- LaBarbera, Priscilla A., and David Mazursky (1983), '*A Longitudinal Assessment of Consumer Satisfaction/Dissatisfaction: The Dynamic Aspect of Cognitive Process*'. *Journal of Marketing Research* 20 (November), 393-404.
- Liljander, Veronica, and Tore Strandvik, (1994), "*The Relationship Between Service Quality, Satisfaction and Intention*", in *Managing Service Quality*, Edited by Paul Kunst, and Jos Lemmink, 45-64.
- Lovelock, Christopher H. (1996), "*Services Marketing*", 3th Edition, Prentice Hall International Editions, Upper Suddle River, NJ 07458, USA.

- Marsh, H.W., and Hocevar, D. (1985), "*Application of confirmatory factor analysis to the study of self-concept: First- and higher -order factor models and their invariance across groups*", *Psychology Bulletin*, 97, 562-582.
- Nunally, Jum C. (1978), "*Psychometric Theory*". New York, McGraw-Hill Book Company.
- Oliver, Richard L. (1980), "*A Cognitive Model of Antecedents and Consequences of Satisfaction Decision*". *Journal of Marketing Research* 17 (November), 460-469.
- Oliver , Richard L. and Wayne S. DeSarbo (1988), "*Response Determinants in Satisfaction Judgment*". *Journal of Consumer Research* 14 (March) : 495-507.
- Swan, John E., and Linda Jones Combs (1976), "*Product Performance and Consumer Satisfaction: A New Concept*". *Journal of Marketing* 40 (April), 25-33.
- Tse, David K. and Peter C. Wilton (1988), "*Model of Consumer Satisfaction Formation : An Extension*". *Journal of Marketing Research* 25 (May), 204-212.
- Westbrook, Robert A. (1980) , "*A Rating Scale for Measuring Product/Service Satisfaction*". *Journal of Marketing* 44 (Fall), 68-72.
- Woodruff, Robert B., Ernest R. Cadotte, and Roger L. Jenkins (1983), "*Modeling Consumer Satisfaction Process Using Experience-Based Norms*". *Journal of Marketing Research* 20 (August), 296-304.
- Woodside, Arch G., Lisa L. Frey, and Robert Timothy Daly (1989), "*Linking Service Quality, Customer Satisfaction, and Behavioral Intention*", *Journal of Health Marketing*, Vol. 9, No. 4 (December 1989), pp. 5-17
- Yi, Youjae (1990), "*A Critical Review of Consumer Satisfaction*" in *Review of Marketing 1990*, Valarie A. Zeithaml, ed. Chicago: American Marketing Association, 68-123.
- Zahorik, Anthony J. Roland T. Rust, and Timothy L. Keiningham (2000), "*Estimating the Return on Quality*", in *Handbook of Services Marketing & Management*. Teresa A. Swartz and Dawn Iacobucci, Eds. Sage Publication, Inc, Thousand Oaks, California, USA, p. 223- 245.
- Zeithaml, Valarie A., Leonard L .Berry and A. Parasuraman (1996), "*The Behavioral Consequences of Service Quality*". *Journal of Marketing* 60 (April), 31-46.