THE RELATIONSHIP AMONG PERCEIVED QUALITY, CONSUMER SATISFACTION AND LOYALTY IN THE VIETNAMESE MARKET FOR SEAFOOD

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ABSTRACT

The purpose of this study is to discuss, develop and test the relationship among perceived quality performance, consumer satisfaction and two different format of loyalty toward seafood. We frame our discussion with the purpose of drawing together streams from the quality-satisfaction research, loyalty literature, attitude research and from research on food consumption behavior. More precisely, we want to test whether the predictive relationship between cognitive quality performance – affective satisfaction – loyalty will be different if we frame our measure of loyalty as an attitudinal construct or as a behavioral construct. This is done in a convenience sample of 250 consumers in Vietnam. The empirical study is based on using structural equation approach to test construct validity of measures and empirical fit of the theoretical model. The results showed a high and positive correlations between perceived quality performance and satisfaction. The relationship between satisfaction and loyalty is positive and weaker than one between quality and satisfaction for the both formats of loyalty as expected. The relationship between satisfaction and attitudinal loyalty is much stronger than one between satisfaction and behavioral loyalty. In addition, evidences of appropriate psychometric properties, reliability and validity, of the measures were supported by the constructs measures in the model.


INTRODUCTION

In increasingly competitive markets, being able to build loyalty to consumers and customers is seen as the key factor in developing competitive advantage. Understanding of why or how loyalty develops in different market situations becomes an important issue for both marketing manager and academics (Oliver 1999). Two important antecedents to consumer loyalty, perceived quality and customer satisfaction, have been thoroughly discussed in the marketing literature over the last ten to fifteen years (Oliver 1997). Despite the extensive discussion of the quality and satisfaction constructs and their problematic relationships (Gotlieb, Grewal, and Brown 1994), few empirical studies have tested their relationship to actual buying behavior or loyalty (Blomer and Ruyter 1998; Zeithaml 2000).

Vietnam has a long coastal line, and located in tropical area, so marine resources is diversified and rich. Long time ago, fish was a familiar meal. Eating fish, talking about fish, recommending others eating fish, admiring fish for its good taste, good texture, and its appearance delicate and so on … are regular topics in Vietnamese meals. Although the trend of industrialization is happening strongly, people have more and more meals at food shops, restaurants, having meals at home are still traditional characteristics of Vietnamese families.

No study we are aware of has tested the Quality-Satisfaction-Loyalty relationship related to food or seafood in Vietnam. Vietnamese fisheries market is developing, but almost domestic firms only focus on export for foreign currency, while the fulfillment of the domestic seafood demand mainly depends on the supplies from small markets where there are a lot of fish retailers operating in conditions in which the food safety is not good. Understanding the relationship is not only very important for food and seafood industries to satisfy better consumer demands but also helps food authorities set up policies to manage more stiltedly the whole supply chain of seafood to enhance quality and consumer satisfaction.

The purpose of this study is to discuss, develop and test the relationship among perceived quality performance, consumer satisfaction and two different format of loyalty. We frame our discussion with the purpose of drawing together streams from the quality-satisfaction research, loyalty literature, attitude research and from research on food consumption behavior (Olsen, 2002). More precisely, we want to test whether the predictive relationship between cognitive quality performance – affective satisfaction – loyalty will be different if we frame our measure of loyalty as an attitudinal construct or as a behavioral construct.
CONCEPTUAL FRAMEWORK

The most frequently used construct in performing an evaluation of products or services over the past twenty years has been perceived quality (Zeithaml, 1988) and/or customer satisfaction (Babin & Griffin 1998; Oliver, 1997). These constructs have been used to evaluate the performance of single attributes as well as a general evaluation of products and services. Recently, the relationship between perceived quality, satisfaction and loyalty has been used as a theoretical framework for describing and explaining how consumers evaluate and buy products and services (e.g., Olsen, 2002). Thus, we want in the following to discuss these three constructs and their relationships.

Quality Performance

Quality performance or perceived quality has been conceptualized, operationalised and applied in various manners and at different levels including excellence, value, conformance to specifications or requirements, fitness for use, loss avoidance and meeting and/or exceeding customers’ expectations (see Reeves & Bednar, 1994 for a discussion). While the early literature used conformance-to-specifications and fitness for use definitions of quality (Juran, 1974), the marketing and service literature have contributed with their focus on defining quality from a customer’s point of view by introducing terms such as perceived quality, subjective quality, quality cues and quality expectations (Zeithaml, 1988). Quality, in the utilitarian sense, has been assessed through the product’s ability to serve its intended purpose or perform its proper function (Sweeney & Soutar, 2001), or its ability to provide satisfaction (Monroe & Krishnan, 1985, p. 212). Churchill & Surprenant (1982) used the term “performance” about perceived experienced quality and “anticipated performance” about expectations.

Quality can be assessed both pre-purchase and post-purchase, and is not necessarily related to a particular transaction (Voss et al., 1998). Perceived quality is further developed in the area of food science and the consumer (e.g., Ophuis & Van Trijp, 1995). The consumer-based definitions include more focus on attitudes, expectations and other psychological aspects. It is also adapted and defined to different product categories like food or seafood (Cardello, 1995). Perceived quality measures are expressed both as expectations and experience evaluations (Grunert et al., 1996). This study defines and measure quality performance as an evaluation of salient beliefs associated with a product; in this case seafood (Olsen, 2002).

Customer Satisfaction and Its Relationship to Quality

Also satisfaction has been defined and measured in different ways over the years (Oliver, 1997). While earlier studies defined satisfaction as a transaction-specific product episode, recent studies argue to define satisfaction as a customer’s overall experiences to date – as cumulative satisfaction, like attitude (Johnson & Fornell, 1991; Olsen, 2002). With regard to the relationship between satisfaction and loyalty, conceptualizing satisfaction as the outcome of one single transaction might be too restrictive. An important advantage of the cumulative satisfaction construct over a more transaction-specific view is that it is better able to predict subsequent behaviors and economic performance (Johnson et al., 2001). In this study, we want to define individual satisfaction as a consumer’s personal overall evaluation of satisfaction and pleasure with a given product (Oliver, 1997).

Satisfaction and perceived quality are highly intercorrelated (Olsen, 2002, 2005). Sometimes the intercorrelation is so high that one can question if quality and satisfaction is the same construct (Bitner and Hubbert 1994; Churchill and Surprenant 1982). Both theoretical and empirical arguments for the order of occurrence between quality and satisfaction have been put forward (Cronin et al. 2000; de Ruyter, Bloemer, and Peeters 1997), and most marketing researchers accept a theoretical framework in which quality performance leads to satisfaction (Dabhokar et al. 2000; Oliver 1997), which in turn influences purchasing behavior (Johnson and Gustafsson 2000; Oliver 1999, Olsen 2002, 2005). If quality is an evaluation or appraisal of attribute performance and satisfaction reflects the impact of the performance on people’s feeling state, then quality can be used to predict customers’ feelings (satisfaction) or buying behavior (Olsen 2002). This perspective is in accordance with the most widely used expectancy value models within attitude research (Eagly and Chaiken 1993), suggesting that attitudes can be predicted from beliefs (e.g., Fishbein and Ajzen 1975). That satisfaction is followed by quality performance has also been confirmed empirically, especially when quality is framed as a specific belief evaluation and satisfaction as a more general evaluative construct (Gotlieb, Grewal, and Brown 1994).

Attitudinal- and Repurchase Loyalty

Jacoby and Chesnut (1978) counted over 50 definitions of brand loyalty, and the number has grown since then. Early studies of customer loyalty mainly focused on the behavioral aspects of customer loyalty. In the 1950’s,
loyalty was widely known through the works of Brown (1952) who used the both behavioral and attitudinal approaches to study on loyalty, however Brown paid little attention to reasons for customer loyalty. Several other researchers (Cunningham, 1956; Pessimier, 1959; Kuehn, 1958; Lipstein, 1959, Frank, 1962) contributed considerably on loyalty research. However, their measures of loyalty are purely behavioral and reflect the fact that the majority of the studies of customer loyalty have focused on customer behavior. The purely behavioral measures also ignored the factors underlying customer behavioral loyalty, and are insufficient to explain why and how brand loyalty develops (Jacoby and Chesnut, 1978; Dick and Basu, 1994) As a response to this deficiency, contemporary measures and definitions of customer loyalty are also acknowledge the attitudinal dimensions of customer loyalty.

Although many different definitions of customer loyalty exist, the consensus to day seem to be that loyalty has a behavioral and an attitudinal dimension and that both merit attention (Jacoby and Chesnut, 1978; Dick and Basu 1994). Loyalty has been defined and measured in many different ways which belongs to one out of three categories: (1) Behavioral measures (based on actual overt behavior or self – reports of past behavior, (2) Attitudinal measures (based on preference statements or statements of likely behavior), or (3) Composite measures that combine the behavioral and attitudinal measures (Jacoby and Chesnut 1978). First approach focuses on behavior, e.g. rebuying behavior, and ignores the cognitive processes underlying that behavior. The second approach focuses on attitudes, where brand loyalty is considered to depend on the psychological commitment, intention to buy, recommend to others or speak favourably about the product or service (e.g., Chaudhuri and Holbrook, 2001; Macintosh and Locksin, 1997; Oliver, 1999).The third approach focuses on the both behavioral and attitudinal dimensions, thereby addressing the complexity of the construct (Jacoby and Chesnut, 1978).

According to Oliver (1997), the basic elements in loyalty research have remained constant since the book by Jacoby and Chesnut was published in 1978. In summary, one can say that the trend in brand loyalty research has been toward the more complex understanding brand loyalty, where the both attitudes and behavior are taken into account (Dick and Basu, 1994). Thus, this study will assess loyalty both as an attitudinal and behavioral construct.

The relationships between purchase intention and perceived quality (e.g., Cronin and Taylor 1992) or customer satisfaction and intention (e.g., Anderson and Sullivan 1993; Taylor and Baker 1994) are assumed to be positive, but vary between products, industries and situations (Cronin, Brady and Hult 2000; Fornell et al. 1996). Few empirical studies have tested the relationships between quality, satisfaction, and loyalty (Olsen 2002; Johnson 2001; Szymanski and Henard 2001; Zeithaml 2000) and the results of their studies have shown that there were positive correlations between them but varied between products, industries, and situations. A recent study by Mittal and Kamakura (2001) found that under some circumstances, the response bias is so high that rated satisfaction is completely uncorrelated to repurchased behavior. However, the main idea behind satisfaction-loyalty research is to prove that satisfied consumers are more loyal than dissatisfied consumers (Oliver, 1997). Based on earlier research we expect that the relationship between satisfaction and loyalty is weaker than the quality – satisfaction relationship (Olsen, 2002) and that the satisfaction – behavioral loyalty relationship is weaker than the satisfaction – attitudinal loyalty relationship (Mittal and Kamakura, 2001; Taylor and Baker, 1994).

Research Issues and Hypotheses

Based on the traditional expectance – value theory of measuring attitude structure, we suggest that quality can be defined and measures as an evaluation of belief performance of seafood and that satisfaction evaluates the impact of the performance of people’s feelings toward seafood (Olsen 2002). We assume that the relationship between quality performance and satisfaction is moderate to high and positive in the Vietnamese seafood market (Szumanski and Hernard 2001; Olsen 2002). We further assume that satisfaction with seafood influence loyalty toward seafood in Vietnam, but that the relationship between satisfaction and attitudinal loyalty is higher than between satisfaction and behavioral (repurchase) loyalty. Although the findings from some researchers (Cronin et al. 2000; Zeithaml 2000) proved that there was a positive correlation between quality and loyalty, we expect our models to be structured in such a way that satisfaction acts as a mediators between quality and loyalty (Olsen 2002), more specifically between quality and two formats of loyalty. This means that quality has only an indirect influence on loyalty through satisfaction (Bloemer and de Ruyter 1998). This assumption is also in accordance with the cognitive – affect – behavior hierarchy within expectancy – value theory (Eagly and Chaiken 1993).

The theoretical models we propose as the satisfaction – loyalty model is shown in Figure 1.
The following hypotheses are suggested:

**H1:** Perceived quality performance has a positive influence on customer satisfaction.

**H2:** Customer satisfaction has a positive influence on attitudinal loyalty.

**H3:** Customer satisfaction has a positive influence on repurchase loyalty.

**H4:** The satisfaction – loyalty relationship is weaker than the quality – satisfaction relationship.

**H5:** The satisfaction – behavioral loyalty relationship is weaker than the satisfaction – attitudinal loyalty relationship.

**METHOD**

**Products, Subjects and Procedure**

Preferences and perceived quality of seafood products, or fish seem to vary depending on species of fish and supplying sources that consumers buy. In Vietnam, there are many species of fish and there is a difference among species and the number of species from area to area. In addition, fresh fish is above 90% in “generic” product categories which includes fresh, frozen, dried and other fish and people almost buy fish from local markets. These characteristics makes research on each species or category more difficult and sophisticated, in stead of this, we conducted our research on general product category – fish, and we hope that people rate their evaluations and thoughts based on kind of fish they usually eat. Evaluating fish as a category is previously done in several studies (see Olsen, 2004 for a recent review).

Questionnaires, cover letters, prepared return envelopes were sent to about 1000 households that covered about 60 in total of 153 main streets at Nha Trang city, Vietnam. These families were sent a short mail in addition the questionnaires that explained the reasons for the study and recommended them to cooperate. About 270 of the questionnaires were returned. Some of the returned questionnaires were rejected because of lack of information, arbitrary, or address missing. A total of 250 cases were used in the following analysis. Most of the respondents were female (68.8%) and married (82.0%). Respondents that are of above 12 years trained formally is 41.3% . Their ages are covered from 18 to 75.

**Questionnaire and Measurement of the Constructs**

The questionnaire used in this study included many questions covered from purchasing patterns, frequencies of consumption, global and attribute evaluations and questions concerning respondents individual information. The order of questions and its effects are well documented phenomenon in survey research (Bickard 1993). We decided to put questions about purchasing patterns and frequencies of consumption in first page, questions involving behavioral control and sources of affecting the choice of consumers in next page, in the next two pages, we decided to place the global evaluation before the attribute evaluation, and the respondents information questions were put in the final page. The way we placed the positions of questions was in accordance with Bickard’s research (1993) and some other studies (Sudman, Bradburn, and Schwarz, 1996, see Olsen 2002).

Customers’ evaluation of perceived quality performance was defined and measured as evaluation of attribute performance (Churchill and Surprenant 1982; Oliver 1997). Fish quality was associated with good taste, good and firm texture, appearing delicate. We used the 7 point Likert scale to measure the construct “perceived quality performance” with 4 statements, “Fish has a good taste”; “Fish has a good and firm texture”; “Fish has an appearing delicate”, and a global evaluation “The quality of fish is generally good”. Respondents rated on 7 point scale: 1 = “total disagree”, 4 = “not agree and not disagree”; 7 = “total agree”. The other point were blanked. However, to improve the fit of the models, the items of this construct were summed randomly into two new items with each new items including two “old” items (Bagozzi & Foxall, 1996), named “quali12” and “quali34”.

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**Figure 1: The conceptual model**

The following hypotheses are suggested:

**H1:** Perceived quality performance has a positive influence on customer satisfaction.

**H2:** Customer satisfaction has a positive influence on attitudinal loyalty.

**H3:** Customer satisfaction has a positive influence on repurchase loyalty.

**H4:** The satisfaction – loyalty relationship is weaker than the quality – satisfaction relationship.

**H5:** The satisfaction – behavioral loyalty relationship is weaker than the satisfaction – attitudinal loyalty relationship.
We defined satisfaction as a global evaluation or feeling state (Gotlier el al, 1994). Respondents were asked to indicate the level of disagreement or agreement with three items used the same 7 – points Likert scale as follows: “I like eating fish”; “Eating fish gives me a pleasant feeling”; and “I feel satisfied when eating fish”. Fish here is understood general fish without distinguishing any species, form or origin of it. These items are frequently used to assess satisfaction as a global evaluation (Olsen, 2002).

Attitudinal loyalty is the underlying predisposition to behave in such a selective fashion (Jacoby, 1971), and it used for the attitudinal dimension of loyalty (Nodman, 2004). Attitudinal loyalty shows the affective commitment of customer and may include intention to buy or recommendation to others (Chaudhuri and Holbrook, 2001; Macintosh and Locksin, 1997; Oliver, 1999). We measured the attitudinal loyalty with three statements: “I often speak favorably about fish with others”, and “I like to be eaten fish regularly”; and “I often recommend others to eat fish”. The 7 – points Likert scales with “1 = Total disagreement” to “7 = Total agreement are used with these items.

The most common assessment of repurchase loyalty is behavioral frequency or repurchases patterns (Jacoby and Chesnut, 1978). The measure of past frequent behavior was addressed by a 12 – point scale of the form, “How many times – on average – during last year have you eaten fish for everyday meal in your home ? 1 = never, 2 = several times a year, 3 = one time a month, 4 = two to three times a month, 5 = one time a week, 6 = two times a week, 7 = three to four times a week, 8 = five to six times a week, 9 = seven to eight times a week, 10 = nine to ten times a week, 11 = eleven to twelfth times a week, and 12 = thirteen to fourteen times a week. This measure has been used in several studies testing frequent food behavior (e.g., Raats, Shepherd and Sparks, 1995; Olsen 2002). We are not able to test the correctness of the individual response of self – reported behavioral frequency compared to the respondents actual behavior, which may be problematic in some studies (Tourangeau, Rips, and Rasinski, 2000). Thus, we fix the error variance of measurement of this scale by 15 % of variance of past consumption frequency (Joreskog & Sorbom, 1982).

Analytical Procedures

Our first goal was to confirm that each measure taps facets of the intended construct (convergent validity) and that the constructs are distinct from each other (discriminant validity). And the second goal is to test the structural relationships between the constructs in our restricted models. To analyze the raw data, we use SPSS 9.0. The missing values which are all lower 5% for the observed variables are replaced with means. To address the first goal, we conducted an analysis of measurement model with three constructs in the proposed model using maximum likelihood estimation in AMOS 5.0 (Arbuckle et.al., 1995). The variances of the constructs were fixed at 1. The traditional chi – square fit test is reported. However, because its sensitiveness to sample size (Browne and Cudek, 1992), three other indices are also conducted: Root mean square error of approximation (RMSEA), Goodness of fit index (GFI), and Comparative fit index (CFI). The GFI has been found to be sensitive to sample size while CFI is essentially independent of sample size (Anderson and Gerbing, 1988). Acceptable models fits are indicated by either p –value of chi square statistics exceeding 0,08 or GFI and CFI values exceeding 0,90 and RMSEA values below 0,80 (Browne and Cudek, 1992).

RESULT

Reliability and Validity of the Measures

Our first goal was to confirm that each measure taps facets of the three latent constructs (convergent validity) and that the constructs are distinct from each other (discriminant validity). An analysis of the a priori measurement model with 9 variables resulted in a good fit with a χ²-value of 28,32 (df = 22, p < .165); RMSEA = 0,034; GFI = 0,976; and CFI = 0,994. The result implies that the measurement model fit good with the data.

Convergent validity was examined by looking at the individual item loadings on the constructs and the average measure of variance shared between the items and the construct (Jöreskog & Sörbom, 1993). Reliability of the multi-item scales was assessed by computing Jöreskog’s composite reliability coefficient for each construct (Anderson & Gerbing, 1988). The standardised factor loadings and construct reliabilities for the measurement model are presented in Table 2.
The individual item loadings (lambdas) on the constructs were all highly significant ($p < .001; t$-value > 13) with values ranging from 0.77 to 0.89. The individual indicators have substantial variance attributed to the underlying latent construct (convergent validity). All the individual scales exceeded the recommended minimum standards proposed by Bagozzi and Yi (1988) in term of construct reliability; composite reliability greater than 0.70 and variance extracted greater than 0.50. These show the convergent validity and reliability of the constructs.

### Table 1: Construct means, standard deviations, and correlations

<table>
<thead>
<tr>
<th>Constructs and Indicators</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality performance</td>
<td>10.48</td>
<td>2.28</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>5.17</td>
<td>1.60</td>
<td>0.70**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Attitudinal loyalty</td>
<td>5.12</td>
<td>1.40</td>
<td>0.50**</td>
<td>0.60**</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Repurchase loyalty</td>
<td>8.34</td>
<td>1.86</td>
<td>0.09 mn</td>
<td>0.19*</td>
<td>0.21*</td>
<td>-</td>
</tr>
</tbody>
</table>

* $p < 0.01$, ** $p < 0.001$; ns – non significant

The intercorrelations among the factors proposed in the model are displayed in Table 1. Except the correlation between the two constructs, perceived quality and repurchase loyalty, is not significant, the correlations are significant ($p < .01$) and below 0.70. This also implies that each correlation is less than 1.00 by an amount exceeding twice its respective standard error (Anderson & Gerbing, 1988). To further assess the discriminant validity of the measures, we adopted a procedure recommended by Bagozzi, Yi and Philips (1991). Within each subset of measures, we examined pairs of constructs in a series of two-factor confirmatory factor models, using AMOS 5.0. A chi-square difference test was conducted.

The results suggest that for all pairs of constructs, the two-factor solution was better ($p < 0.01$) than the single-factor solution. For example, combining quality and satisfaction into a single factor produced a significantly worse fit (chi$^2$ = 89.46; GFI = 0.880; CFI = 0.871; RMSEA = 0.260) than did a model treating these as separate factor (chi$^2$ = 7.347; GFI = 0.989; CFI = 0.995; RMSEA = 0.058).

### Table 2: Constructs and Indicators

<table>
<thead>
<tr>
<th>Constructs and Indicators</th>
<th>Factor loadings</th>
<th>t-values</th>
<th>Composite Reliability</th>
<th>Extracted Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality performance</td>
<td>0.86</td>
<td>14.70</td>
<td>0.83</td>
<td>0.71</td>
</tr>
<tr>
<td>Quali12</td>
<td>0.82</td>
<td>13.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>0.83</td>
<td>15.25</td>
<td>0.88</td>
<td>0.70</td>
</tr>
<tr>
<td>Pleasant</td>
<td>0.82</td>
<td>15.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied</td>
<td>0.86</td>
<td>16.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like eating</td>
<td>0.77</td>
<td>13.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudinal loyalty</td>
<td>0.86</td>
<td>13.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speak favorably</td>
<td>0.89</td>
<td>16.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eat regularly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommend others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square = 28.32, df = 22 $p$-value = .165, RMSEA = .034, GFI = .976, CFI = .994, N = 250

### The Structure of the Quality-Loyalty-Relationship

The main effects of the model presented in Figure 1 were tested using AMOS 5.0 on the item variance-covariance matrix. Our structural model suggested an good fit with the $\chi^2$ statistics (34.46; df =25, $p = .099$; RMSEA = .039; GFI = .971, and CFI = .991). The standardized estimates for the various model paths and the associated $t$-values are provided in Table 3. Except the structural coefficient between customer satisfaction and behavioral loyalty is significant at 0.01, the other structural coefficients are significant at $p$ – values under 0.001.
Table 3 Hypothesized Paths

<table>
<thead>
<tr>
<th>Hypothesized paths</th>
<th>Hypothesis</th>
<th>Estimate</th>
<th>t-value</th>
<th>R² (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality performance (\rightarrow) Satisfaction</td>
<td>H1</td>
<td>0.70**</td>
<td>9.27</td>
<td>49.5</td>
</tr>
<tr>
<td>Satisfaction (\rightarrow) Attitudinal loyalty</td>
<td>H2</td>
<td>0.61**</td>
<td>8.14</td>
<td>36.9</td>
</tr>
<tr>
<td>Satisfaction (\rightarrow) Repurchase loyalty</td>
<td>H3</td>
<td>0.20</td>
<td>2.84</td>
<td>3.9</td>
</tr>
</tbody>
</table>

*\(p < .01; \ *) **\(p < .001; \) Chi-Square = 34.46, df = 25, \(p\text{-value} = .099; \) RMSEA = .039, GFI = .971, CFI = .991.

As suggested by Hypothesis H1, quality performance is significantly positively related to customer satisfaction \( (\beta = 0.70, t = 9.27) \). The similar results also support for the two Hypotheses H2, and H3 \( (\beta = 0.61, t = 8.14, \text{and } \beta = 0.20, t = 2.84, \text{respectively}) \). As our expectation, the relationship between satisfaction and attitudinal loyalty is much stronger than one between satisfaction and behavioral loyalty both the magnitude of the relationship, 0.61 compared with 0.20, and explanatory power which is 36.9% compared with 3.9% (H4). As in several earlier studies, a high positive relationship exists between quality and satisfaction, and this relationship is stronger than one between satisfaction and loyalty as expected (H5).

**DISCUSSION AND IMPLICATIONS**

This research empirically examined the effect of defining and measuring two formats of loyalty, attitudinal and behavioral loyalty, with fish as a category without distinguishing the differences about species, processed forms, or origin of fish. The study used the relationship between quality performance, satisfaction and loyalty, as well as the context of eating fish at home of Vietnamese families as the main object to study. The data we used is collected by mail from families in Nhatrang, a city of Vietnam. The model as developed included satisfaction as a mediator between quality and loyalty (Olsen, 2002). By means of confirmatory factor analysis, evidence of appropriate psychometric properties, reliability and validity, of the measures supported by the constructs measures in the model.

A high positive correlation between quality and satisfaction existed \( (\beta = 0.70, t = 9.27) \). The findings are according with ones found earlier (Cronin & Taylor, 1992; Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Golieb et al., 1994; Olsen, 2002). The discriminant validity between quality and satisfaction was confirmed. A confirmatory factor analysis showed that they are the two constructs were distinct (A chi –squared difference test were significant at 0.01). The result is similar the earlier findings (Olsen, 2002; Spreng and Mackoy,1996). The relationship between satisfaction and loyalty is positive and weaker than one between quality and satisfaction for the both formats of loyalty as expected (Cronin, 2000). The relationship between satisfaction and attitudinal loyalty is much stronger than one between satisfaction and behavioral loyalty. These evidences supported the hypotheses and once again confirmed the rational of the hierarchy of loyalty of Jacoby and Chesnut (1978).

It is very clear that perceived quality performance keeps the important role in explaining customer satisfaction (49.5 %) that is the first tie of customers to a product. And its turn, satisfaction proved that it has relatively considerable effect on customer loyalty for both attitudinal and behavioral aspects of it. The result supports the integration of quality performance and satisfaction into considering loyalty. Thus, management attention should focus on enhancing fish quality to improve customers satisfaction.

The comparison the relationship between satisfaction with the two formats of loyalty also suggests that to create the true loyalty to retain customers and to gain more profit, marketers and companies need to understand deeply the post purchasing attitudes of customers to their products and what is the gap from their attitudes to their behavior. The relationship between satisfaction and attitudinal loyalty is much stronger both the magnitude (0.61 compared with 0.20) and exploratory power (36.9 % compared with 3.9 %) than one between satisfaction and behavioral loyalty which is worth to concern in businesses point of view. Maybe customers’ consumption is not corresponding with their attitudes, but it is very difficult to say that their attitudes to a product do not have effects to others around him or her and vice versa. This issue requires that whether it should integrate the subjective norms as moderators of the relationship between relative attitudes and repeat purchase (Dick & Basu, 1994) into the model to consider its effect to the loyalty.
In addition, the research used the indicators of “behavioral intention” to measure the attitudinal loyalty. Specifically, Zeithaml, Berry, and Parasuraman (1996) suggest that favorable behavioral intentions are associated with a service provider’s ability to get its customers to 1) say positive things about them, 2) recommend them to other consumers, 3) remain loyal to them, 4) spend more with the company, and 5) pay price premiums (see Cronin, Brady, & Hult, 2000). We used three items to measure the attitudinal loyalty that are similar to the first three of above five indicators. This create opportunities to modify, extend and integrate other theories into studying the loyalty and also the relationship between the dimensions of it to improve exploratory power of the model. A modification can be a structural relationship added between attitudinal loyalty and behavioral loyalty. The modification is accordance with Dick and Basu’s (1994) point of view about relative attitude-Behavior relationship. The relationship between the two formats loyalty were also studied by Hong (2001) who supposed “the degree of attitudinal loyalty was a strong influential factor in the formation of behavioral loyalty”. Otherwise, when considering satisfaction as attitudes component, and loyalty as behavioral intention, our model of loyalty becomes only a branch in the model of TPB. This implies that the other antecedents from TPB can be integrated into studying the loyalty, or other words, subjective norms, behavioral control (availability, knowledge, and other resources), self – efficacy, self – identity (Conner & Armitage, 1998) will be determinants of loyalty.

Vietnam has a long coastal line, the characteristics about culture, society, nature are different among locals. Because of limitations of time and finance, the study only focus on a category of fish – fresh marine fish – so it is just a primary study. In addition, the research only is only conducted on a convenience sample collected in Nha Trang, so the results may not be true for the whole of Vietnam.

ACKNOWLEDGEMENT

The research reported in this article was funded by NORAD project which is cooperation between Norway government and Fisheries University of Nha Trang, Vietnam.

REFERENCES


