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The mediating effect of organizational reputation on customer loyalty and service recommendation in the banking industry

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Abstract

Purpose – The overall purpose of this study was to develop an understanding of the mediating effect of organizational reputation on service recommendation and customer loyalty.

Design/methodology/approach – Four models were developed that were variations of the American Customer Satisfaction Model (ACSM). These models were then tested by using the Partial Least Squares (PLS) procedure on a data collected from a survey that yielded 8,098 respondents.

Findings – It was found that customer satisfaction enhances reputation in the service environment. It was also discovered that reputation partially mediates the relationship between satisfaction and loyalty, and that reputation partially mediates the relationship between satisfaction and recommendation.

Research limitations/implications – More research needs to be undertaken to explore the role of reputation within the ACSM. It is necessary to conduct research employing experimental design with longitudinal data captured from across industries using robust measures.

Originality/value – The findings suggest that the relationship between corporate reputation and profitability may reside in reputation's influence on customer loyalty, and that reputation plays an important role within the ACSM. This study is one of the first documented attempts to use PLS to test a mediation effect.

Keywords Customer satisfaction, Customer loyalty, Banking

Paper type Research paper

Introduction

The third most-often cited construct in the intellectual capital literature is customer capital (Bontis, 1998, 1999). As such, customer capital is hypothesized to be a driving force behind organizational performance (Bontis and Fitz-enz, 2002). The satisfaction of customers is an extremely popular subject in the extant management literature. This is because it is often associated with higher customer loyalty rates and increased economic returns that drive strategic business valuation (Anderson *et al.*, 1994,

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Anderson and Srinivasan, 2003, Gronholdt *et al.*, 2000, Parasuraman and Grewal, 2000, Spiteri and Dion, 2004, Srinivasan *et al.*, 2002). Most previous research projects have investigated new approaches to increase customer satisfaction. However, businesses have begun to realize that satisfied customers are not always profitable. Now, the attention has shifted to understanding of the link between satisfaction and profitability (Bloemer and Kasper, 1995, Zeithaml, 2000). Researchers examine the consequences of satisfaction such as reputation, loyalty and service recommendation (Athanassopoulos *et al.*, 2001, Hallowell, 1996).

The American Customer Satisfaction Model (ACSM) (Fornell *et al.*, 1996) is one of the most widely employed models in satisfaction research. It is a causal model describing several key antecedents and consequences of customer satisfaction. The model and its various adaptations have been utilized in numerous multi-discipline investigations, for example, in information systems (Dow *et al.*, 2006, Turel and Serenko, 2006), banking (Ball *et al.*, 2004, Chakravarty *et al.*, 2004, Hallowell, 1996, Mukherjee *et al.*, 2003), transportation, communications, and retailing (Arnett *et al.*, 2003).

The causal relationship between satisfaction and service recommendation has not been explored in the context of the American Customer Satisfaction Model. The original model proposed a negative link between customer satisfaction and complaining behavior; service/product recommendation was not included. However, service/product recommendation factors have been explored together with customer satisfaction (Brown *et al.*, 2005, Gremler *et al.*, 2001). Some projects report a positive association (Athanassopoulos *et al.*, 2001, Ranaweera and Prabhu, 2003, Wirtz and Chew, 2002, Zeithaml *et al.*, 1996) while others have difficulty finding a connection. Brown *et al.* (2005) conclude that the relationship between the two constructs is more complex than previous studies had indicated and call for further research.

The link between satisfaction and reputation has received minimal attention. It was found that satisfaction leads to reputation (Anderson and Sullivan, 1993) and improves image (Andreassen and Lindestad, 1998). Wang *et al.* (2003) concluded that service quality causes superior reputation in the banking industry in China. Research into corporate reputation has progressed independently of research into satisfaction.

The link between reputation and customer loyalty deserves more attention. Andreassen and Lindestad (1998) argued that corporate image – part of reputation – is an antecedent to customer loyalty. Later, it was concluded that reputation may be loyalty's strongest driver (Andreassen, 1994, Ryan *et al.*, 1999). Andreassen and Lindestad encourage others to investigate the role that image plays, but very little research has been undertaken since.

In addition to that gap, there has been very little research examining reputation as a causal factor in positive recommendation responses. Rogerson (1983) showed that a high reputation increases the likelihood that consumers will provide a recommendation.

The literature within the reputation field suggests that there is a link between corporate reputation and financial performance. The nature of that relationship has not been established. Chun (2005) has argued that the reputation – financial performance link might not be direct but might be related to satisfaction and loyalty, and that satisfaction and loyalty may be either antecedents or consequences of reputation. In addition to this, the effects of corporate reputation have not been previously examined

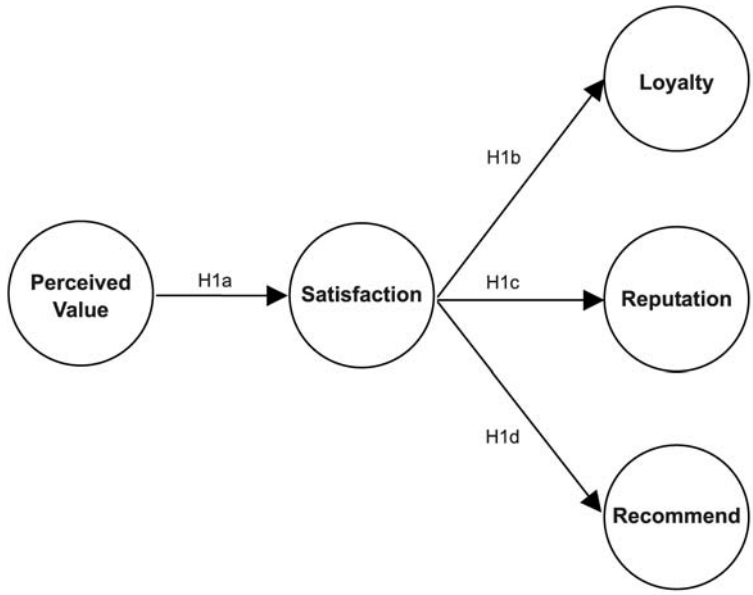
within the nomological network of the ACSM. That leaves some room for further research.

Theoretical background and model development

In this section, a model of the consequences of customer satisfaction is proposed, and its variations are examined in which the potential mediating effect of reputation on customer loyalty and service recommendation is explored. The model consists of five interrelated latent variables: perceived value, satisfaction, loyalty, reputation, and recommendation.

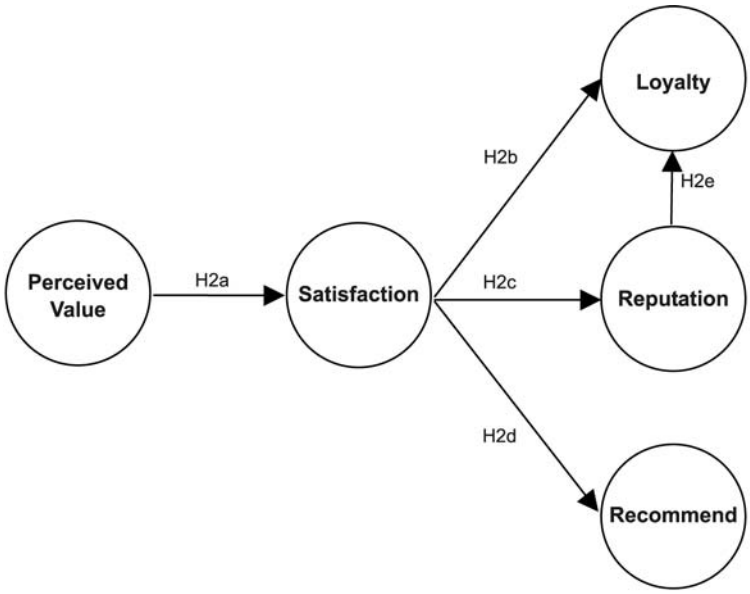
Figure 1 depicts three simple direct outcomes of satisfaction – loyalty, reputation, and recommendation. Figure 2 shows a similar model in which reputation mediates the relationship between satisfaction and loyalty. Figure 3 alters the model so that reputation mediates the relationship between satisfaction and recommendation. Figure 4 shows the model in which reputation mediates the relationship between satisfaction and loyalty, and satisfaction and recommendation.

Perceived value is the customer's overall assessment of the benefits they receive relative to the sacrifice they make (Dodds *et al.*, 1991, Fornell *et al.*, 1996, Slater, 1997, Woodruff, 1997, Zeithaml, 1988). Customer satisfaction is the consumers' overall evaluation based on their overall experience. Although it can be viewed in two ways – transaction-specific outcome or cumulative evaluation (Wang *et al.*, 2004) – the ACSM-based research considers satisfaction a cumulative evaluation.



Hypothesis 1(a). Perceived value has a positive direct effect on satisfaction.
Hypothesis 1(b). Satisfaction has a positive direct effect on loyalty.
Hypothesis 1(c). Satisfaction has a positive direct effect on reputation.
Hypothesis 1(d). Satisfaction is has a positive direct effect on recommendation.

Figure 1.
Satisfaction without indirect effects



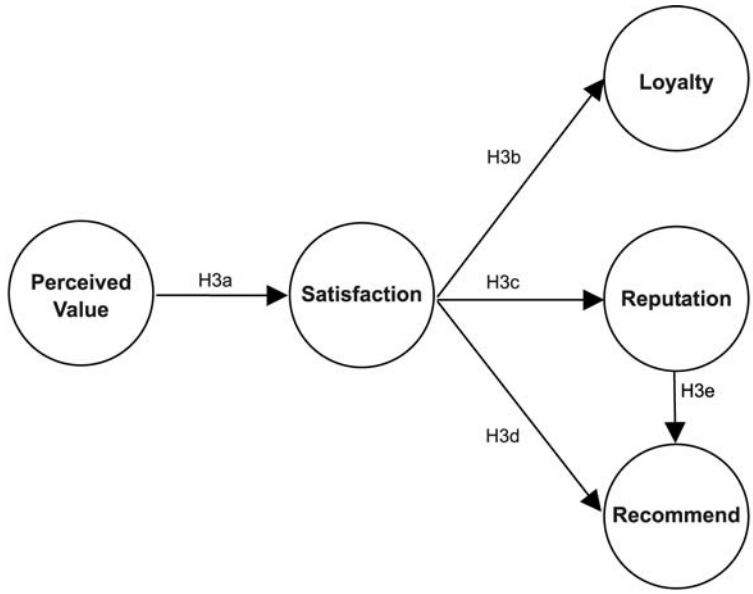
Hypothesis 2(a). Perceived value has a positive direct effect on satisfaction.
Hypothesis 2(b). Satisfaction has a positive direct effect on loyalty.
Hypothesis 2(c). Satisfaction has a positive direct effect on reputation.
Hypothesis 2(d). Satisfaction has a positive direct effect on recommendation.
Hypothesis 2(e). Reputation has a positive direct effect on loyalty.

Figure 2.
Reputation mediating loyalty

In the literature, loyalty has been defined as an attitude and as a behavior (Ball *et al.*, 2004). The attitudinal perspective positions loyalty as a desire to continue a relationship with the company. The problem is that intentions are an imperfect representation of behavior (Mittal and Kamakura, 2001) since they do not always lead to actions. The behavioral perspective describes loyalty as repeat patronage (Reibstein, 2002) but does not reveal the motive that inspires it. The behavior could be spurious (Dick and Basu, 1994), based on habit, third person influence, convenience or even random chance (Oliver, 1999). This project defines loyalty from an attitudinal perspective; it measures loyalty as the likelihood of switching in the absence of switching costs. Furthermore, direct relationships between satisfaction and loyalty, between reputation and loyalty, and a mediating relationship between satisfaction, reputation and loyalty are proposed.

The link between satisfaction and loyalty is well established, but the one between reputation and loyalty is under-explored. For example, Andreassen (1994) modeled a relationship between reputation and loyalty and concluded that reputation may be the strongest driver of loyalty in the public sector, but this issue has not been investigated further. The European Customer Satisfaction Index draws a relationship between image and loyalty. Many accounts of reputation use the terms image and reputation interchangeably.

Currently, there are a variety of definitions of corporate reputation (Berens and Van Riel, 2004, Chun, 2005, Gotsi and Wilson, 2001); each academic discipline offers its own



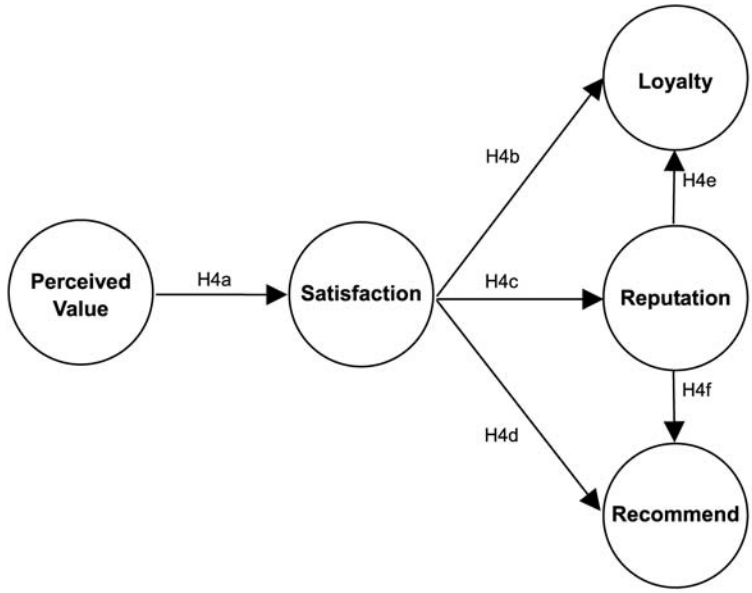
Hypothesis 3(a). Perceived value has a positive direct effect on satisfaction.
Hypothesis 3(b). Satisfaction has a positive direct effect on loyalty.
Hypothesis 3(c). Satisfaction has a positive direct effect on reputation.
Hypothesis 3(d). Satisfaction has a positive direct effect on recommendation.
Hypothesis 3(e). Reputation has a positive direct effect on recommendation.

Figure 3.
Reputation mediating recommendation

perspective (Chun, 2005). Some scholars have explored reputation from a multi-stakeholder perspective – a corporation does not have a single reputation, it has many. No single definition of corporate reputation has been accepted as a uniform definition. The most effective ones describe corporate reputation as a global valuation.

There are as many ways of measuring reputation as there are academic disciplines studying it. There are various ranking, rating, and scale-based measures. Ranking measures, employed by *Fortune* or the *Financial Times*, provide ordered company listings. They indicate which company is better but not how much better it is. Rating measures ask respondents to rate the reputation of the company. They do not enable researchers to compare the reputation of firms within industries or between industries. However, they are effective at capturing situation-specific measures of the perceptions of the target stakeholders a disaggregated level of analysis.

Scale measures, such as Fombrun's reputation quotient, may be used to capture multiple dimensions of the reputation construct, e.g. innovation and management quality in various stakeholder groups. Rankings and scales have a common problem; they provide an aggregated measure of reputation. The problem is that corporations do not have one reputation; they have many (Caruana, 1997). Therefore, aggregate measures such as rankings and scales can result in an ecological fallacy if they are used at disaggregated levels of analysis. The literature has not reached a consensus on how best to measure reputation. For an excellent overview of efforts to define and measure reputation see Gotsi and Wilson (2001) and Chun (2005).



Hypothesis 4(a). Perceived value has a positive direct effect on satisfaction.
Hypothesis 4(b). Satisfaction has a positive direct effect on loyalty.
Hypothesis 4(c). Satisfaction has a positive direct effect on reputation.
Hypothesis 4(d). Satisfaction has a positive direct effect on recommendation.
Hypothesis 4(e). Reputation has a positive direct effect on loyalty.
Hypothesis 4(f). Reputation has a positive direct effect on recommendation.

Figure 4.
Reputation mediating loyalty and recommendation

The present project measures reputation by asking customers to rate the organization's reputation in comparison to those of its competitors on a five-point Likert-type scale ranging from best in the industry to worst in the industry. This method provides several benefits. First, it captures the reputation with the stakeholders of interest to this study – the consumers of banking services. Second, it does not presume to understand the dimensions of reputation that are important to the consumer. Asking customers to rate the bank's reputation allows the consumer to determine which elements of reputation are important to them. Next, this method has the advantage of providing comparative information. It is not enough to know that a bank's clients would rate its reputation as above average if it is not known how they would rate its competitors. Therefore, the measure chosen for this project provides a comparative rating.

Service recommendation, also referred to as advocacy and word-of-mouth (WOM) in the customer service literature, can be either positive or negative. This project focuses on positive WOM – the inclination of the consumer to say nice things about the firm. Satisfied customers are more likely to engage in positive WOM (Anderson *et al.*, 1994; Athanassopoulos *et al.*, 2001). Brown *et al.* (2005) argue that the antecedents of WOM are not fully understood and conclude that the satisfaction – WOM link is more complex than previous research suggested. This project defines recommendation as the consumer's likelihood of recommending the institution if asked to make a recommendation by a friend.

Based on the discussion above, four research questions and related hypotheses are proposed.

RQ1. What are the possible causal relationships among the following constructs: perceived value, satisfaction, loyalty, reputation, and recommendation (i.e. what causal models can be formed out of these constructs based on the extant literature)?

To answer this research question, a review of related literature in the field of marketing, general management, intellectual capital, and corporate reputation was conducted. Based on the preliminary findings in the related academic works, four possible nomological networks (i.e. models) may be constructed. Figures 1 to 4 present these models.

RQ2. In terms of each individual suggested model, do the proposed relationships hold true?

RQ3. In terms of a mediating effect of the reputation construct, does it fully or partially mediate the satisfaction – loyalty relationship?

RQ4. In terms of a mediating effect of the reputation construct, does it fully or partially mediate the satisfaction – recommendation relationship?

Methodology

Data collection and research instrument

The data for this study were collected from a major North American bank (referred to as "ABC Bank") in 2003 as part of its routine customer satisfaction survey. The survey was conducted by ABC representatives over the phone. The list of potential respondents was randomly generated from the entire client base with no discrimination requirements. The research instrument was created by International Survey Research LLC (ISR) in collaboration with ABC. This research instrument is copyrighted. Therefore, as the intellectual property of ISR, it may not be presented in this project as per a non-disclosure agreement.

The scale items can be described however. Perceived value was measured by asking customers to assess the bank's products and services considering bank fees on a ten-point scale. Satisfaction was measured by a question relating to the overall customer experience with the bank for the past three months on a ten-point scale. Loyalty was captured by asking respondents about their probability – on a ten-point scale – of switching to a comparable service if no effort or expenses were involved. The three items presented above were very similar or adapted from Fornell *et al.* (1996). Reputation was measured by a question on a five-point scale pertaining to the overall evaluation of the bank's reputation compared with those of similar financial institutions in North America over the past three months. Recommendation was measured by a ten-point scale item about the customer's likelihood of recommending ABC to a colleague, friend, or a business acquaintance.

The measures above employ one-item constructs. The value of single-item constructs has been debated. On the one hand, the use of multiple indicators for each construct is desirable since this allows measuring the psychometric properties of constructs under investigation. On the other, there is evidence to suggest that

single-item constructs are as good at capturing the nature of the phenomenon in question as several-item instruments (Gardner and Cummings, 1998, Patrician, 2004, Wanous *et al.*, 1997). Also, additional items may provide little incremental value while reducing the quality of respondent responses (Drolet and Morrison, 2001). Moreover, in terms of the present study, the items that measure perceived value, satisfaction and loyalty were adapted from Fornell *et al.* (1996) who initially presented these indicators as part of multi-item constructs. However, all subsequent projects report on high reliability and validity measures of these items; for instance, some researchers report Cronbach's Alpha of above 0.9. Therefore, in the practice-oriented survey conducted by a professional company specializing in survey research, one-item constructs were believed to be more relevant.

Data analysis procedures

Partial Least Squares (PLS) (Chin, 1998a, b, 2001) was employed to estimate the models (Figures 1-4). PLS is a second generation structural equation modeling (SEM) technique developed by Wold (1982). It works well with structural equation models that contain latent variables and a series of cause-and-effect relationships (Gustafsson and Johnson, 2004). PLS has three major advantages over other SEM techniques that make it well suited to this project. First, in PLS, constructs may be measured by a single item whereas in covariance-based approaches, at least four questions per construct are required. Second, in most marketing studies, data tend to be distributed non-normally (it is noted that mostly ten-item scales were employed to reduce a negative impact of non-normality), and PLS does not require any normality assumptions and handles non-normal distributions relatively well. Third, PLS accounts for measurement error and should provide more accurate estimates of interaction effects such as mediation (Chin, 1998a).

PLS poses challenges and opportunities for the study of mediation effects. On the one hand, it is particularly well suited to the study of mediation. Mediation effects are the product of two relationships; between the independent variable and the mediator, and between the mediator and the dependent variable. The product of two normally distributed variables is always skewed (Bollen and Stine, 1990, Lockwood and Mackinnon, 1998), but PLS does not rely on normality assumptions. PLS employs bootstrapping to test the significance of relationships so it work well with non-normal data (Efron, 1988). Therefore, PLS may perform well in testing mediation effects. On the other hand, there appears to be no official guidelines providing instructions on how to use PLS to study mediation.

There are, however, general recommendations for testing mediation that can be categorized into three general approaches (Mackinnon *et al.*, 2002). The first method, described as the causal steps approach, is based on the works of Judd and Kenny (1981) and Baron and Kenny (1986). A search on the ISI Web of Science citation database indicates that Baron and Kenny's paper has been cited over 8,120 times that adds credibility to this method. The second approach, described as the difference in coefficients method, examines regression coefficients before and after the mediating variable is included. The third technique is outlined as the product of coefficients involving paths in a path model approach. The first approach uses regression analysis. The last two approaches employ the goodness-of-fit indices provided by

covariance-based SEM. SEM is the method preferred for mediation analysis (Frazier *et al.*, 2004).

PLS is best used with the casual steps approach that relies on regression analysis. The path coefficients generated by PLS provide an indication of relationships and can be used similarly to the traditional regression coefficients (Gefen *et al.*, 2000). First, a direct link must be established between the independent and dependent variable to ensure there is a relationship to be mediated. Second, a direct relationship must be established between the independent and mediator variable. Third, the mediator must be shown to be related to the dependent variable. Last, the relationship between the independent and dependent variables must be significantly reduced when the mediator is added. The relationships between the independent and dependent variables as well as the independent and mediating variables should be theoretically based and supported by the literature. These four steps will be emulated in this study using PLS.

The assessment of the significance of the reduction of the relationship between the independent and dependent variables cannot be assessed by a visual inspection of the coefficients. It has to be assessed mathematically. The Sobel test has been a traditional method of testing the significance of mediation effects. Newer methods that are similar to the Sobel test have been shown to have higher power than the Sobel test (Mackinnon *et al.*, 2002). For large sample sizes – like the one used in this study – all tests generate similar results. The Sobel test is used in this study because it is the most widely employed. The significance is measured by the following formula:

$$z\text{-value} = a^{*}b/\text{SQRT}(b^{2}{*}s_{a} + a^{2}{*}s_{b}^{2}).$$

This formula requires the unstandardized regression coefficient (a) and the standard error (s_a) of the relationship between the independent variable a, and the unstandardized regression coefficient (b) and standard error (s_b) of the path from the mediator to the dependent variable.

Results

Descriptive statistics

The survey instrument was administered in Canada on behalf of a major bank by International Survey Research LLC who surveyed 8,098 respondents. Out of them, 55 per cent were female, the average age was 44 years old, and 25 per cent of the respondents (2,057) used internet banking. Based on the overall customer data of ABC, it was concluded that this was a fully representative sample.

Construct statistics

Perceived value, satisfaction, loyalty and recommendation were captured using a ten-point Likert-type scale. Reputation was measured on a five-point scale. Loyalty was captured using a negatively-worded scale (the measure was converted). Table I provides descriptive statistics for the constructs.

Model analysis

Bootstrapping was used to evaluate the significance of the path coefficients and estimate the standard error. Bootstrapping is not a standardized procedure. A situation-specific decision must be made regarding the number of bootstrap retrials to undertake (Rasmussen, 1988). An inadequate number of retrials may result in incorrect

estimates of standard error, confidence intervals, t-values, or conclusions in hypothesis tests.

Useful guidelines for the selection of the number of retrials are being explored in the literature (Andrews and Buchinsky, 2000, 2001, 2002). For this study, the software would not perform more than 3,783 retrials on the fourth model. Even at that level, there is still some variability in the output of the bootstrapping process. Table II shows the estimate of standard error, and Table III demonstrates t-statistics from five separate runs of the PLS bootstrap procedure on model four with 3,783 retrials. Given some inconsistencies, average values were used in further calculations.

Model one analysis

The first model presents direct paths from satisfaction to the three dependent variables (see Figure 5). All links were significant at the 0.000 level. No indirect effects were hypothesized or tested. Refer to Table IV for detail.

Model two analysis

The second model shows reputation playing a mediation role between satisfaction and loyalty (see Figure 6 and Table IV). Four distinct models that emulate the Baron and Kenny four-step method were made to test mediation relationships. Each model had:

Item	N	Min	Max	Mean	Std dev
Perceived value	7,536	1	10	7.549	1.8616
Satisfaction	8,059	1	10	7.753	1.8561
Loyalty (negative)	7,880	1	10	6.254	2.9595
Reputation	7,679	1	5	3.750	0.8420
Recommendation	7,962	1	10	7.753	2.3991

Table I. Descriptive statistics of variables

Path	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
Pv-Sat	0.0111	0.0112	0.0112	0.0113	0.0112
Sat-Loy	0.0128	0.0125	0.0127	0.0127	0.0128
Sat-Rep	0.0107	0.0110	0.0109	0.0109	0.0108
Sat-Rec	0.0115	0.0115	0.0115	0.0112	0.0113
Rep-Loy	0.0127	0.0128	0.0128	0.0126	0.0127
Rep-Rec	0.0111	0.0109	0.0110	0.0108	0.0108

Table II. Variability of estimates of standard error generated by PLS Graph's Bootstrap Procedure at 3,783 retrials

Path	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
Pv-Sat	56.7928	56.3791	56.3448	55.8821	56.0136
Sat-Loy	27.8889	28.6360	28.0343	28.2076	27.8413
Sat-Rep	46.7258	45.6813	46.0191	45.8028	46.4012
Sat-Rec	46.3382	46.6799	46.5674	47.6089	47.3771
Rep-Loy	18.9674	18.7257	18.6870	19.0539	18.9082
Rep-Rec	28.6235	28.9829	28.7780	29.3270	29.2905

Table III. Variability of *t*-values and standard deviation produced by PLS Graph's Bootstrap Procedure at 3,783 retrials

(1) a direct path from satisfaction to loyalty;
(2) a direct path from satisfaction to reputation;
(3) a direct path from reputation to loyalty; and
(4) a direct path from satisfaction to loyalty, and an indirect path from satisfaction to reputation then from reputation to loyalty.

Each model included a direct path from perceived value to satisfaction.

Mediation exists if the coefficient of the direct path between the independent variable and the dependent variable is reduced when the indirect path via the mediator is introduced into the model. The direct path is measured without the mediator in step 1 above, and with the mediator in step 4 above. The standardized beta of the direct path was 0.477 in step 1 and 0.357 after the reputation was introduced as a mediator. The amount of the relationship between satisfaction and loyalty accounted for by the mediator was 0.120 that represents 25.15 per cent of the direct effect.

The significance of the mediation effect was assessed using the Sobel test. PLS provided the standardized regression coefficients, and unstandardized coefficients were calculated by multiplying the standardized coefficient by the standard deviation of the dependent variable and dividing it by the standard deviation of the independent variable (see Table V). The z-value for the indirect path in step 4 above was 19.83, $p < 0.000$.

Model three analysis

The third model shows reputation playing a mediation role between satisfaction and recommendation (see Figure 7, Table VI and Table IV). The standardized Beta between satisfaction and recommendation was 0.694 when the link was direct and 0.535 when

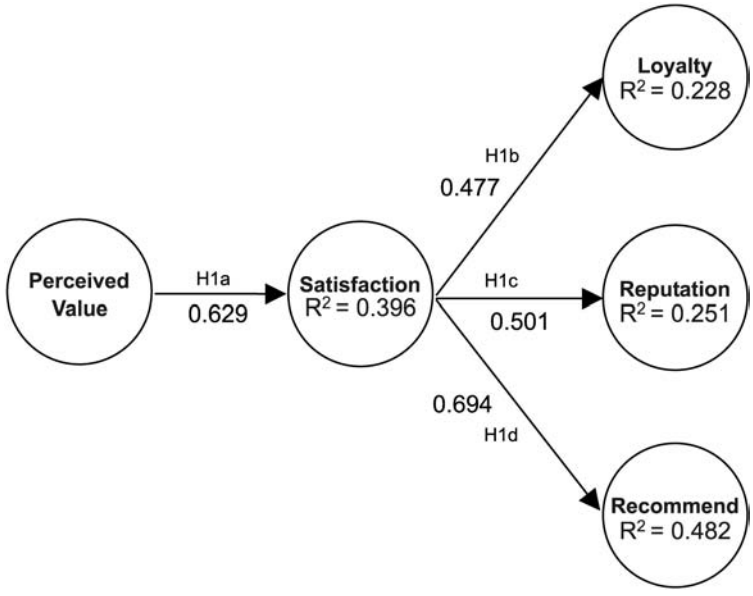


Figure 5.
Model 1 direct effects – Betas for the paths and R^2 for the variables

	Beta	*t*-value*
Model 1		
H1a. Perceived value – satisfaction	0.629	54.3624
H1b. Satisfaction – loyalty	0.477	45.0746
H1c. Satisfaction – reputation	0.501	46.4607
H1d. Satisfaction – recommendation	0.694	78.5316
Model 2		
H2a. Perceived value – satisfaction	0.629	56.9522
H2b. Satisfaction – loyalty	0.357	27.8419
H2c. Satisfaction – reputation	0.501	46.3028
H2d. Satisfaction – recommendation	0.694	78.1016
H2e. Reputation – loyalty	0.240	18.8037
Model 3		
H3a. Perceived value – satisfaction	0.629	56.1118
H3b. Satisfaction – loyalty	0.477	43.2094
H3c. Satisfaction – reputation	0.501	47.2248
H3d. Satisfaction – recommendation	0.535	46.5060
H3e. Reputation – recommendation	0.317	29.2456
Model 4		
H4a. Perceived value – satisfaction	0.629	56.7928
H4b. Satisfaction – loyalty	0.357	27.8889
H4c. Satisfaction – reputation	0.501	46.7258
H4d. Satisfaction – recommendation	0.535	46.6799
H4e. Reputation – loyalty	0.240	18.9674
H4f. Reputation – recommendation	0.557	28.9829

Notes: * All *t*-values are significant at the 0.000 level

Table IV.
Hypothesis table with *t*-statistics

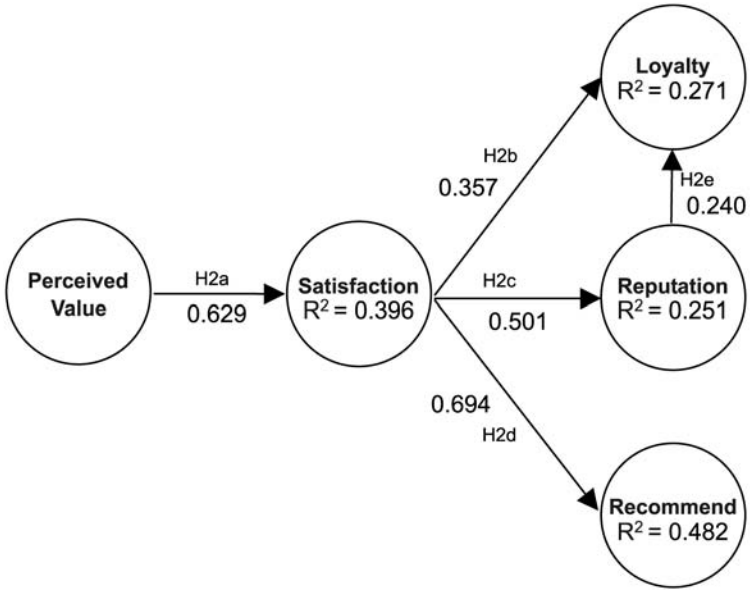


Figure 6.
Model 2 Betas for the paths and R^2 for the variables

reputation was included as a mediator, a difference of 23 per cent. The z-value provided by the Sobel test was 19.2, $p < 0.000$.

Model four analysis

The fourth model shows reputation playing a mediation role between satisfaction and recommendation, and between satisfaction and recommendation. It incorporates the mediation relationships examined in both model 2 and 3 (see Figure 8, Tables VII and IV).

The standardized link between satisfaction and loyalty was 0.477 when the link was direct and 0.357 when reputation was included as a mediator, a difference of 0.120. The indirect path of satisfaction to reputation and from reputation to loyalty was $0.501*0.240 = 0.120$. The z-value provided by the Sobel test was 21.76, $p < 0.000$.

The standardized link between satisfaction and recommendation was 0.694 when the link is direct and 0.535 when reputation is included as a mediator, a difference of 23 per cent. The indirect path from satisfaction to reputation and from reputation to

Table V.
Model 2 test of mediation

Step	Path	Standardized Beta	Standard deviation of "Y"	Standard deviation of "X"	Unstandardized Beta	Stand. error
1	Satisfaction – loyalty	0.477	2.960	1.856	0.761	0.0109
2	Satisfaction – reputation	0.501	0.842	1.856	0.277	0.0106
3	Reputation – loyalty	0.419	2.960	0.842	1.473	0.0111
4	Satisfaction – loyalty	0.357	2.960	1.856	0.569	0.0121
4	Satisfaction – reputation	0.501	0.842	1.856	0.227	0.0108
4	Reputation – loyalty	0.240	2.960	0.842	0.844	0.0130

Figure 7.
Model 3 Betas for the paths and R^2 for the variables

Step	Path	Standardized Beta	Standard deviation of "Y"	Standard deviation of "X"	Unstandardized Beta	Stand. error
1	Satisfaction – recommend	0.694	2.399	1.856	0.897	0.0080
2	Satisfaction – reputation	0.501	0.842	1.856	0.227	0.0115
3	Reputation – recommend	0.585	2.399	0.842	1.667	0.0106
4	Satisfaction – recommend	0.535	2.399	1.856	0.692	0.0107
4	Satisfaction – reputation	0.501	0.842	1.856	0.227	0.0097
4	Reputation – recommend	0.317	2.399	0.842	0.903	0.0109

Table VI.
Model 3: test of mediation

Figure 8.
Model 4 Betas for the paths and R^2 for the variables

Step	Path	Standardized Beta	Standard deviation of "Y"	Standard deviation of "X"	Unstandardized Beta	Stand. error
1	Satisfaction – loyalty	0.477	2.960	1.856	−0.761	0.0103
1	Satisfaction – recommend	0.694	2.399	1.856	0.897	0.0084
2	Satisfaction – reputation	0.501	0.842	1.856	0.227	0.0101
3	Reputation – loyalty	0.419	2.960	0.842	−1.473	0.0111
3	Reputation – recommend	0.585	2.399	0.842	1.667	0.0100
4	Satisfaction – loyalty	0.357	0.296	1.856	0.569	0.0128
4	Satisfaction – reputation	0.501	0.842	1.856	0.227	0.0115
4	Satisfaction – recommend	0.535	2.399	1.856	0.692	0.0113
4	Reputation – loyalty	0.240	2.960	0.842	0.844	0.0139
4	Reputation – recommend	0.317	2.399	0.842	0.903	0.0105

Table VII.
Model 3: test of mediation

recommendation was $0.501*0.317 = 0.159$. The z-value provided by the Sobel test was 22.3, $p < 0.000$. This shows partial mediation in both cases.

All of the hypotheses proposed earlier were supported.

Discussion and conclusion

The overall purpose of this study was to develop an understanding of the mediating effect of organizational reputation on service recommendation and customer loyalty in the banking industry. Recall that the research questions asked what causal models can be formed out of the constructs based on the literature, and whether the proposed relationships hold true for each model. For this, four adapted versions of the American Customer Satisfaction Model were proposed and tested using the results of a customer satisfaction survey administered by a major North American bank.

The purpose of the first research question was to construct possible causal relationships among the following constructs: perceived value, satisfaction, loyalty, reputation, and recommendation. For this, a review of related works in the field of marketing, satisfaction, and corporate reputation was conducted. Based on the preliminary findings in the related academic studies, four possible nomological networks (i.e. models) may be constructed (Figures 1-4). In each model, perceived value had a positive direct effect on customer satisfaction. In the first model, direct relationships between satisfaction and loyalty, reputation, and recommendation were presented. In the second, a mediating relationship was proposed between satisfaction and loyalty with reputation acting as the mediator. In the third, reputation was proposed as a mediator between satisfaction and recommendation. In the fourth model, reputation was proposed as a mediator between both satisfaction and loyalty, and between satisfaction and recommendation. Based on theory, it was difficult to justify the superiority of any model; therefore, empirical tests were conducted.

The objective of the second research question was to subject the proposed models to empirical testing to verify whether the proposed relationships hold true. For this, the PLS data analysis technique was employed. There are six points that deserve attention.

First, the widely accepted relationship between perceived value and satisfaction is confirmed. The beta for the relationship was 0.629 for each model.

Second, the widely accepted theory that there is a link between satisfaction and loyalty was supported. This study found a moderate relationship between satisfaction and loyalty. The beta of the direct path between satisfaction and loyalty was 0.477.

Third, the relationship between customer satisfaction and corporate reputation is significant with the beta of 0.501. Anderson and Sullivan's (1993) finding that higher satisfaction leads to higher reputation is supported. Consistent with this finding, Wang *et al.* (2003) concluded that service quality leads to superior reputation in the banking industry in China. This project finds evidence that their conclusion applies to North America as well.

Fourth, strong empirical support for the relationship between satisfaction and recommendation was found. The beta of the direct path was 0.694 that supports previous studies (Athanassopoulos *et al.*, 2001; Ranaweera and Prabhu, 2003; Wirtz and Chew, 2002; Zeithaml *et al.*, 1996). Fifth, both Andreassen's (1994) and Ryan *et al.*'s (1999) findings that reputation is a strong driver of loyalty were confirmed. The reputation – loyalty direct link was 0.419. However, within the models tested, reputation was portrayed as part of an indirect effect. Therefore, within the suggested

nomological network the beta of that link was 0.240. Sixth, the understudied relationship between reputation and recommendation was found to be significant (beta = 0.557). That lends weight to Rogerson' (1983) conclusion that maintaining a high reputation increases the likelihood that consumers will provide a recommendation.

The objective of the third research question was to empirically examine a proposed mediation relationship between satisfaction and loyalty. The amount of the relationship between satisfaction and loyalty accounted for by the mediator was $(0.477 - 0.357) = 0.120$, which represents 25.15 per cent of the direct effect. Therefore, it is concluded that reputation partially mediates the relationship between satisfaction and loyalty.

The goal of the fourth research question was to test the mediation relationship between satisfaction and recommendation through reputation. The amount of the relationship accounted for by reputation was $(0.694 - 0.535) = 0.159$, and the product for the betas of the indirect path was 0.159 that represents 29.7 per cent of the relationship between satisfaction and recommendation.

Based on these findings, it is concluded that reputation serves as a partial mediator of two links: customer satisfaction and loyalty, and satisfaction and recommendation in the banking industry.

Prior research of corporate reputation and customer satisfaction progressed independently of each other. This project has placed reputation within the framework of the ACSM that furthers our understanding of the outcomes of satisfaction. This study appears to be one of the first projects to use PLS to analyze a mediation relationship.

The findings suggest that corporate reputation among customers can be improved by focusing on customer satisfaction. Customer loyalty and the likelihood of customer recommendation can be enhanced by increasing reputation. Consequently, reputation should serve to enhance corporate profitability. This project reinforces the belief that reputation has an important role to play in the banking service environment. It puts forward one possible causal explanation of the elusive link between reputation and profitability.

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