



A two-dimensional model of trust–value–loyalty in service relationships



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ABSTRACT

The study examines the relationships between consumer trust (cognitive and affective), perceived value (utilitarian and hedonic), and loyalty behavioral intentions (repurchase and advocacy) in a two-dimensional (affect- and rational-based) consumer–service provider model. It provides an alternative theoretical representation of consumer behavior in service relationships and implications for service providers about consumers' loyalty intentions. A mail survey analyzed by SEM supports the model of loyalty as a function of consumers' expressive and instrumental responses resulting from intrinsic and extrinsic perceptions of trust and heuristic and rational-based perceived value. Implications for designing loyalty programs are explored and future research opportunities recommended.

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1. Introduction

Service providers have generally exhausted the possibilities of differentiation based on price, convenience or quality, tried customization and changed image or ambiance to provide special benefits to their customers. Such strategies work well in the short term but are easily imitated by competitors. Most loyalty studies indicate that satisfaction alone is no longer sufficient to bond customers because satisfied customers still switch to competition; nonetheless the perceived value is deemed to drive loyalty (Hu et al., 2009; Neal, 1999). Thus, a competitive advantage to prevent customer defection and enhance loyalty can be built around customer perceived value attributes rather than satisfaction or even service quality per se (Chen, 2015; Parasuraman, 1997; Woodruff, 1997). Although previous customer value studies have examined the antecedents and consequences of perceived value (Jensen, 2001) and its associations with trust and loyalty outcomes (Jones et al., 2006; Sirdeshmukh et al., 2002; Taylor et al., 2014), no empirical study has investigated the impacts of consumer trust and perceived value on loyalty intentions in an affect- and rational-based view of consumer–service provider model. Prior research has largely used highly abstract variables (e.g., trust, perceived value). The present study seeks to deepen the research

stream in a very specific way, by disaggregating these highly abstract variables into two dimensions, their cognitive and affective components, and creating a dual pathway model. The present study fills this gap and develops a two-dimensional application of consumer trust (cognitive and affective), perceived value (utilitarian and hedonic), and loyalty behavioral intentions (repurchase and advocacy) in a consumer–service provider model that has not previously been attempted in the financial services context. The research is also important from a practical perspective, as managers may be confused by the lack of a clear, common-sense and practical causal flow for understanding and improving behavioral loyalty in terms of the key variables that we will address.

2. Theoretical background

2.1. Trust: cognitive and affective

The literature shows that trust is a powerful predictor of loyalty in service relationships (Ball et al., 2004; Singh and Sirdeshmukh, 2000). Trust is “a willingness to rely on an exchange partner in whom one has confidence” (Moorman et al., 1993, p. 82). Trust is commonly studied in a two-dimensional view based on a rational evaluation process and an emotional response raised from the interactions (Johnson and Grayson, 2005; Parayitam and Dooley, 2009). The first dimension of trust is known as cognitive trust, cognition-based trust, knowledge-based trust, or system trust (Fukuyama, 1995; Lewicki and Stevenson, 1997; McAllister, 1995).

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This type of perceived trustworthiness is objective in nature and is based on “a rational process which determines whether the other party in the relationship can be trusted” (Zur et al., 2012, p. 74). In other words, cognitive trust is related to perceived trustworthiness, which is based on the service provider's expertise and performance, such as competence, credential, and reliability (Johnson and Grayson, 2005).

The second dimension of trust is known as affect-based trust, emotional trust, interpersonal trust, or relational trust (Guenzi and Georges, 2010; Lewis and Weigert, 2012; Rousseau et al., 1998). This type of perceived trustworthiness is subjective in nature and is based on “the feelings, emotions, and moods of the other” (Zur et al., 2012, p. 75). Simply, affective trust is related to emotionality, which is raised by the service provider's likeability, such as courteousness, friendliness, and pleasantness (Nicholson et al., 2001).

2.2. Perceived value: utilitarian and hedonic

Customer value is widely recognized and defined from either a consumer's perspective or an organization's perspective (Landroguez et al., 2013). Consumer perceived value, the central focus of this study, is a customer's judgment or a valuation based on a comparison of the perceived benefits and costs received from a product, service or relationship (Overby and Lee, 2006). Perceived value can predict consumer loyalty, influence purchase intention and prevent consumer switching behavior (Anderson et al., 2014; Chiu et al., 2014). The consumer perceived value can result from the personal comparison of the benefits gained and the sacrifices made (Overby and Lee, 2006). Research identifies two approaches to the conceptualization and dimensionality of perceived value. (1) Perceived value as a construct configured by benefits received, e.g., social, psychological, economic and customization benefits (Gwinner et al., 1998), and sacrifices made by the customer, e.g., price, time, effort and convenience (Cronin et al., 2000; Overby and Lee, 2006). (2) The conceptualization of perceived value as a construct that incorporates a functional and an affective dimension (Roig et al., 2009; Sánchez-Fernández and Iniesta-Bonillo, 2009). The functional or utilitarian dimension is defined by the rational and economic valuations of individuals. On the other hand, the affective or hedonic dimension is defined by emotional and social valuations of individuals (Boksberger and Melsen, 2011; Voss et al., 2003).

Utilitarian value is “an overall assessment (i.e., judgment) of functional benefits and sacrifices” (Overby and Lee, 2006, p. 1161), which is based on the assumption that consumers are rationale. Rintamäki et al. (2006) suggest that monetary savings and convenience contribute to utilitarian value. Cronin and Taylor (1992) suggest that price, convenience, and availability of product affect consumer behavioral intentions. Utilitarian value is characterized as extrinsic and instrumental (Chandon et al., 2000) because consumers experience utilitarian value when their functional or task-related needs are fulfilled.

As opposed to utilitarian value, hedonic value is abstract and subjective (Babin et al., 1994). Hedonic value is “an overall assessment (i.e., judgment) of experiential benefits and sacrifices” (Overby and Lee, 2006, p. 1161). Hirschman and Holbrook (1982) suggest that hedonic value consists of the experiential view of three F's: fun, feelings, and fantasies. It can be argued that hedonic consumption is related to an individual's experience of the multisensory, fantasy, and emotive aspects of services or products. Based on the literature of value, consumer perceived value toward the service provider can be defined as both intrinsic and extrinsic to the offering of services discussed in this study.

2.3. Loyalty: behavioral intention

The importance of behavioral intentions as predictors of customer loyalty is well recognized in many service provider and multi-services contexts that cover high and low contact, and experience and credence services (Patterson, 2004), such as mobile banking (Luarn and Lin, 2005) and financial consulting (Guenzi and Georges, 2010). Zeithaml et al. (1996) suggest that behavioral intentions are useful dependent constructs in measures of relational and loyalty behavior because they are more closely related to actual behavior than overall service quality or customer satisfaction constructs.

Behavioral intentions can be grouped into two categories, as either social or economic behavior (Guenzi and Georges, 2010). Advocacy intention (word of mouth recommendation intention) is widely recognized as a social measure of loyalty (Jones and Taylor, 2007). One important way this can arise in a service context is that a consumer committed to a social relationship with a service employee will engage in advocacy because of the social benefits received from this relationship. The underlying logic of this reciprocity can be explained by social exchange theory (Blau, 1964), which suggests an individual endorses reciprocity in return for an obligation (Cropanzano and Mitchell, 2005). Customers who feel comfortable with their service provider relationship may act as advocates for them, and these recommendations can be influential to new customers' decision making, particularly for services, which are inherently intangible. Research indicates that social ties and word-of-mouth referral behavior are related (Lewis and Weigert, 2012). When customers feel trapped and dependent on their partners, they are less likely to advocate on behalf of the partners (Harrison-Walker, 2001). Thus, advocacy intention can be regarded as an expressive response of loyalty which is motivated by emotional factors or perceived social benefits (Jones et al., 2008). Roy's (2013) study also found customer advocacy has direct positive impact on customers' behavioral loyalty and positive word-of-mouth. In sum, advocacy intention or recommend intention is the likelihood of recommending a service provider to others in the future (Wang, 2009).

Anderson and Sullivan's (1993) study indicates that satisfaction is a key determinant of consumers' repurchase intentions and a significant association exists between consumer overall satisfaction and intention to repurchase across product categories. Woodside et al. (1989) also find that patients tend to choose the same hospital again when satisfied with their care and a customer evaluation about service experience demonstrated the importance of service encounters in the service delivery process. This implies that a consumer may be committed to the service provider because of his or her overall satisfaction with the service provided by the service personnel. A consumer committed to an economic exchange relationship with a service employee will continue to purchase these services because of the economic benefits received from this relationship. This is common sense, but the underlying logic of this behavior can also be explained in terms of rational choice theory, which suggests that an individual's purchase decision is based mainly on the economic benefits that he or she can gain from the exchange (Scott, 2000). Thus, repurchase intention can be regarded as an instrumental response of loyalty which is motivated by self-interest and economic factors (Jones et al., 2008). In sum, repurchase intention is an individual's judgment about purchasing a designated service from the same company again, taking into account his or her current situation and likely circumstances (Hellier et al., 2003).

3. Conceptual model and hypotheses

Building on previous research on consumer trust, perceived

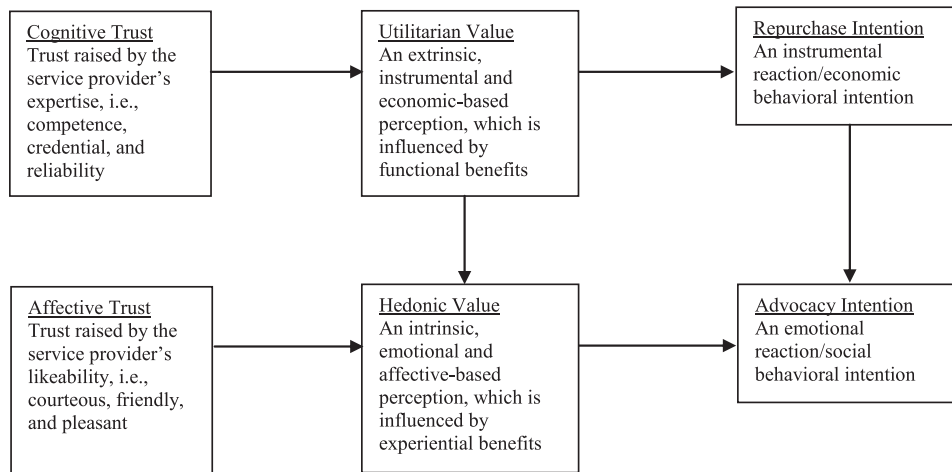


Fig. 1. A two-dimensional model of trust–value–loyalty.

value, and loyalty behavioral intentions, this study suggests that consumer cognitive and affective trust and hedonic and utilitarian values are loyalty factors to advocacy and repurchase intentions. Consumer trust raised by a service provider's expertise or likeability affects consumers' extrinsic or intrinsic value perception and in turn influences consumers' loyalty instrumental or emotional reaction. Based on the review of the theoretical ground and supporting evidence, a conceptual framework of a two-dimensional model of trust–value–loyalty is developed (see Fig. 1).

The next section develops the model step by step. This model is a general model but is designed in particular for the industry context it will be tested in, the banking industry. Services are a very broad sector of the economy, encompassing many industries, so we chose as our focal industry the banking industry. The set of variables that we have discussed are important to understand theoretically and also are key variables for this industry. Trust and consumer word of mouth are especially important in the banking industry.

Cognitive trust is a customer's confidence in or willingness to have faith in a service provider's competence and reliability (Moorman et al., 1993). This trust arises from “an accumulated knowledge that allows one to make predictions, with some level of confidence, regarding the likelihood that a focal partner will live up to his/her obligations” (Johnson and Grayson, 2005, p. 501). A customer's perception of a salesperson's expertise reflects the identification of relevant competencies associated with a particular transaction (Crosby et al., 1990). Expertise is assessed by a service provider's level of knowledge and experience concerning the focal service (Johnson and Grayson, 2005). Assessments of service personnel's expertise and cognitive trust employ an attribute evaluation process involving the specific identifiable actions of the service provider. This notion is consistent with research showing that a person's perceived level of expertise enhances his or her source credibility and thereby trustworthiness. The perceived service provider's expertise relates closely to a customer's cognitive trust; thus, cognitive trust is an antecedent of perceived utilitarian value.

H1. : cognitive trust has a positive impact on a consumer's perceived utilitarian value to the service provider.

Affective trust is the confidence a person places in a partner based on the level of care and concern that partner demonstrates (Johnson-George and Swap, 1982). Characteristics of affective trust include “feelings of security and perceived strength of the relationship” and is “decidedly more confined to personal experiences with the focal partner than cognitive trust” (Johnson and

Grayson, 2005, p. 501). As emotional connections deepen, trust in a partner may venture beyond what available knowledge justifies. Such emotional exchanges are capable of eliciting a bond of trust in and commitment to the service provider, leading to the development of an interpersonal relationship or commercial relationship (Grayson, 2007; Price and Arnould, 1999). A service employee's social skills and likeability has a positive association with a customer's interpersonal trust (Guenzi and Georges, 2010; Nicholson et al., 2001). Perceptions of the service provider's interpersonal trust closely relate to a customer's affective trust, such that affective trust is an antecedent of perceived hedonic value.

H2. : affective trust has a positive impact on a consumer's perceived hedonic value to the service provider.

Research shows that customer value influences consumer repurchase intentions (Chiu et al., 2014; Olaru et al., 2008). The present study suggests that utilitarian value (instrumental-based) is an antecedent of a consumer's repurchase intention (an instrumental response) because of exchange economic benefits received by the consumer. Utilitarian value is characterized as instrumental and extrinsic and provides functional or economic benefits or perceived value (Babin et al., 1994). Since repurchase intention is an instrumental response of loyalty outcome (Jones et al., 2008), it can be argued that utilitarian value is a predictor of economic behavioral intention of repurchase.

H3. : utilitarian value has a positive influence on a consumer's repurchase intention.

Previous research reveals that perceived value has a positive effect on consumer recommend intentions (Hartline and Jones, 1996). The present study positions hedonic value (affect-based) as an antecedent of a consumer's advocacy intention (an expressive response) because of exchange social benefits received by the consumer. Hedonic value is characterized as emotional and intrinsic and provides social benefits or perceived value (Babin et al., 1994). Hedonic value is an outcome related to more subjective and personal spontaneous responses. It emphasizes entertainment, exploration, and self-expression derived from fun and enjoyment rather than from task completion and it is affective, experiential, and non-instrumental in nature. Since advocacy intention is an expressive response of loyalty outcome, motivated in part by strong affect toward the service, it can be argued that hedonic value is a predictor of social behavioral intention of advocacy.

H4. : hedonic value has a positive influence on a consumer's advocacy intention.

Research indicates that the cognition-based component of attitude comprises beliefs, thoughts, and judgments associated with an attitude object, while the affect-based component of attitude consists of feelings, emotions, and drives with an attitude object (Chiu et al., 2005). Edwards (1990) suggests that an individual's affective component of attitude results from cognition. Ajzen and Fishbein's (1980) theory of reasoned action (TRA) suggests that cognition is an antecedent factor of affective response. Chiu et al.'s (2005) bank study finds that extrinsic utilitarian value is a predictor of intrinsic hedonic value. Repurchase intention is related to instrumental, economic, and calculative-based response, whereas advocacy intention is primarily experiential, personal, and subjective (Jones et al., 2008). Olaru et al.'s (2008) findings in the research and development industry reveal that customer value is a key determinant of repurchase and recommendation intentions, while customers' willingness to recommend to others is a result of their repurchase intention. These findings support links between utilitarian and hedonic value, and between repurchase and advocacy intention, in service relationships.

H5. : utilitarian value has a positive impact on hedonic value.

H6. : repurchase intention has a positive impact on advocacy intention.

4. Methodology

4.1. Sample and data collection method

The banking industry is a good test case for examining the drivers of key loyalty types. Contextualizing the research allows for more precise and concrete questions to consumers. The study employs two survey stages. The first pilot survey applied a combination of qualitative and quantitative approaches: (i) a pre-test with a panel of experts for content validity, (ii) a pre-test with banking practitioners to check the relevance and applicability of questions that suit the bank environment, and (iii) a pilot survey with a convenience sample of 150 residents living in Dunedin city, New Zealand for construct validity. The second survey randomly distributed 2000 mailings to New Zealand residents nationwide, which were drawn from the database of Electoral Rolls of New Zealand. The advantage of this self-administered method was that a broader sample could potentially be achieved. The survey questionnaire was mailed with a cover letter, an information sheet, a consent letter, and a return postage paid envelope that allows respondents to complete the survey questionnaire in their free time and to send their reply back in the paid envelope. In addition, respondents have an option to fill in their answers online. Thus, respondents preferring online response could do so, and respondents preferring a written and mailed response could do so. The result was 278 mail completed surveys were received and 115 online surveys were captured. Mail response preference compared to online response preference was 2.41 to 1. Responses not completed or invalid questionnaire for mail is 3 and online is 22. Thus, the invalid rate of mail response is lower than online response. A total net mailed-out of 1839 was valid after deletion of undelivered or returned, refusal and invalid answers. The final valid sample was 368, for a 20% response rate (following the formula of Brennan (2004)).

While the response rate is only 20%, this is not uncommon for mail surveys (Fink, 2003). Nevertheless, the sample size of 368 cases in this mail survey met the minimum requirement sample

size of 300 cases to ensure appropriate use of maximum likelihood (ML) estimation in structural equation modeling (SEM) analysis, to generate valid model fit measures, and to avoid drawing inaccurate inferences in factor analysis (Norušis, 2006; Tabachnick and Fidell, 2007).

The surveyed respondents were heterogeneous with a wide variety of characteristics represented throughout the population in New Zealand. The percentage of female participants (56.52%) is higher than male participants (43.48%). This is common in mail surveys, which are dominated by female participants (Hair et al., 2006). The group aged 40–49 years (30.44%) is the largest group among surveyed respondents. More than half of the respondents are married (62.23%). Overall, the sample had a high level of educational background. More than half of the respondents (53.53%) have a bachelor's degree, about 18% have a master's degree, and 11% have a professional qualification. In terms of annual income, half of the respondents (50%) earned less than NZ\$50,000 and less than half of the respondents (45%) earned more than NZ \$50,000 at the time of the survey. Non-response bias in the sample was not evident based on an Armstrong and Overton (1977) test. Preliminary examination of the data resulted in 25 respondents removed due to missing data, and statistical assumptions of univariate and multivariate normality of the data were confirmed. Data factorability (Tabachnick and Fidell, 2007) was confirmed using the Kaiser–Meyer–Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity (Pallant, 2005).

4.2. Measures

The items in measurement were drawn from previously tested and validated scales with modified wordings to best describe the banking environment (see Table 1). Trust factors were measured as cognitive and affective drawing on scales from Johnson and Grayson (2005). Perceived intrinsic and extrinsic values were measured as hedonic and utilitarian drawing on scales from Chiu et al. (2005) and Liu and Wu (2007). Loyalty behavioral intentions were measured in terms of a consumer's repurchase and advocacy intentions drawing on scales from Jones et al. (2008). The final questionnaire was limited to the key variables and kept short to try to minimize any discouragement to complete the questionnaire due to length. All scales applied a seven-point Likert Scale with anchors of strongly disagree (1) and strongly agree (7).

5. Analysis and results

Common method variance (CMV) bias can be a potential threat to the validity of survey research especially when all self-report measures are obtained in a single questionnaire. The data was tested for CMV bias using the methodology proposed by Lindell and Whitney (2001) and further refined by Malhotra et al. (2006) and Schaller et al. (2015). All of the observed correlations that were originally significant remained significant after correcting for CMV as proposed by Lindell and Whitney (2001). These results indicate that CMV was not a bias in this study.

Test statistics support the fit of the model to the data. The overall fit test result for χ^2 (128)=448.34 was statistically significant at p value=0.000. Standard fit indices for the model all fell inside their recommended thresholds: CFI=0.95, IFI=0.95, NFI=0.93, TLI=0.94, and RMSEA=0.08. A confirmatory factor analysis (CFA) measurement model was used to assess construct reliability and validity (Anderson and Gerbing, 1988). Factor loadings for the CFA measurement model ranged from 0.63 to 0.95, which are above the acceptable level of 0.50. All critical ratio (CR) values were greater than the acceptable level of 1.96, with $p < 0.001$. Cronbach alphas ranged from 0.83 to 0.95, exceeding the

Table 1
Measurement items and descriptive statistics.

Factor	Indicator	Statement	Mean	Standard deviation
Cognitive trust (CT)	CT1	Given my banking consultant's track record, I have good reason to trust his/her competence.	4.77	1.29
	CT2	Given my banking consultant's track record, I have no reservations about acting on his/her advice.	4.36	1.36
	CT3	I can rely on my banking consultant to undertake a thorough analysis of the situation before advising me.	4.74	1.25
Affective trust (AT)	AT1	My banking consultant displays a warm and caring attitude towards me.	5.19	1.17
	AT2	If I share my problems with my banking consultant, I feel he/she would respond caringly.	4.93	1.26
	AT3	I would feel a sense of personal loss if I could no longer use my banking consultant's service.	4.34	1.43
Utilitarian value (UV)	UV1	This bank satisfies the majority of my financial needs.	5.75	1.09
	UV2	I feel this bank is convenient.	5.78	1.09
	UV3	I feel this bank is efficient.	5.45	1.20
Hedonic value (HV)	HV1	The time I spend in this bank is enjoyable	5.32	1.11
	HV2	I chose this bank not because I had to, but because I wanted to.	5.39	1.39
	HV3	I feel that I made the right decision by choosing this bank.	5.54	1.14
Repurchase intention (RP)	RP1	I will probably use this bank again.	5.25	1.13
	RP2	I intend to purchase services from this bank again in the future.	5.19	1.14
	RP3	It is possible that I will use this bank in the future.	5.34	1.17
Advocacy intention (AD)	AD1	I will say positive things about this bank to other people.	5.08	1.25
	AD2	I will recommend this bank to other people who ask my advice.	5.10	1.30
	AD3	I will encourage friends and relatives to do business with this bank.	4.89	1.32

0.70 threshold. Average variance extracted (AVE) values ranged from 0.76 to 0.89, exceeding the critical level of 0.50. Thus, composite reliability and convergent validity are supported.

We examined multicollinearity and tested discriminant validity for all measures. The results of regression analyses of the 18 variables included in the model indicate that all variance inflation

Table 2
Results of construct reliability, convergent validity, model fit, assessments of CFA measurement model and structural model.

Construct and path	Alpha coefficient (α)	Factor loading (β)	CR	p-value	Influence direction	Hypothesis result
Reliability						
Cognitive trust	0.89					
Affective trust	0.85					
Utilitarian value	0.90					
Hedonic value	0.83					
Repurchase intention	0.94					
Advocacy intention	0.95					
CFA measurement model						
CT1 ← Cognitive trust (CT)		0.89				
CT2 ← Cognitive trust (CT)		0.82	19.85	0.000		
CT3 ← Cognitive trust (CT)		0.85	21.03	0.000		
AT1 ← Affective trust (AT)		0.93				
AT2 ← Affective trust (AT)		0.93	27.40	0.000		
AT3 ← Affective trust (AT)		0.63	14.22	0.000		
UV1 ← Utilitarian value (UV)		0.86				
UV2 ← Utilitarian value (UV)		0.87	21.38	0.000		
UV3 ← Utilitarian value (UV)		0.87	21.49	0.000		
HV1 ← Hedonic value (HV)		0.79				
HV2 ← Hedonic value (HV)		0.68	13.46	0.000		
HV3 ← Hedonic value (HV)		0.89	18.31			
RP1 ← Repurchase intention (RP)		0.92				
RP2 ← Repurchase intention (RP)		0.90	28.02	0.000		
RP3 ← Repurchase intention (RP)		0.93	30.54	0.000		
AD1 ← Advocacy intention (AD)		0.95				
AD2 ← Advocacy intention (AD)		0.94	36.38	0.000		
AD3 ← Advocacy intention (AD)		0.91	31.96	0.000		
CFA structural model						
CT → UV		0.54	9.99	0.000	Positive	Supported
AT → HV		0.32	7.40	0.000	Positive	Supported
UV → RP		0.65	12.94	0.000	Positive	Supported
HV → AD		0.18	3.70	0.000	Positive	Supported
UV → HV		0.69	13.04	0.000	Positive	Supported
RP → AD		0.66	13.46	0.000	Positive	Supported
Model fit measurement						
Chi-square (χ^2)			448.34		Acceptable level $p > 0.05$ (at α equals to 0.05 level)	
Degree of freedom (df)			128			
Probability level			0.00			
CFI			0.95		≥ 0.90	
IFI			0.95		≥ 0.90	
NFI			0.93		≥ 0.90	
TLI			0.94		≥ 0.90	
RMSEA			0.08		≤ 0.80	

Note : CFI=comparative-fit index; IFI=incremental-fit index; NFI=normed-fit index; TLI=Tucker–Lewis index; RMSEA=root mean square error of approximation.

Table 3
Average variance extracted (AVE) analysis for discriminant validity.

Construct	AVE	Cognitive trust	Affective trust	Utilitarian value	Hedonic value	Repurchase intention	Advocacy intention
Cognitive trust	0.862	0.928					
Affective trust	0.785	0.685	0.886				
Utilitarian value	0.892	0.434	0.410	0.944			
Hedonic value	0.762	0.488	0.567	0.687	0.873		
Repurchase intention	0.863	0.529	0.589	0.571	0.611	0.929	
Advocacy intention	0.850	0.467	0.523	0.462	0.552	0.727	0.922

Note: Square root of the average variance extracted compared with the correlations of constructs. Bold numbers on the diagonal are the square root of the AVE (SQRT AVE) values.

factor (VIF) values ranged from 1.677 to 7.745, which are lower than the threshold value of 10 (Aiken and West, 1991; Belsley et al., 1980). This indicates absence of multicollinearity issues in the data. In addition, the square root of the AVE (SQRT AVE) values (ranged from 0.87 to 0.94) exceed the inter-construct correlation coefficients (Fornell and Larcker, 1981; Kline, 2005), which indicates discriminant validity for the measures. The results for construct reliability, convergent validity, model fit, and assessments of CFA measurement model and structural model are presented in Table 2, and AVE analysis for discriminant validity is presented in Table 3.

5.1. Comparison of overall fit to an alternative model

Several studies suggest that as part of testing the proposed model, researchers should include testing it versus an alternative model to further establish its efficacy (Bollen and Long, 1992; Iwasaki and Havitz, 2004; Morgan and Hunt, 1994). An alternative model was developed following the alternative model testing procedure of Morgan and Hunt (1994). As in their classic article, the theorized model was compared to a model of direct paths to each dependent variable from all the other variables. That is, paths determined by the proposed theory, with its mediating flow, are tested for better fit versus a model of “no theory” in the sense of paths not constrained by theory.

The comparison shows (Table 4) that the theorized model's goodness-of-fit indices (CFI=0.95, IFI=0.95, NFI=0.93, TLI=0.94), which were above common benchmarks of 0.90, are all higher than the alternative, direct effects model's goodness-of-fit indices (CFI=0.84, IFI=0.84, NFI=0.83, TLI=0.81), which were below common benchmarks of 0.90. Similarly, the theorized model's RMSEA (0.08) indicates a good fit, whereas the alternative model's RMSEA (0.14) indicates a poor fit. In addition, the theorized model's PNFI (0.78) is higher than the rival model's PNFI (0.69). In sum, test statistics show the theorized model is a fit to the data, and a better fit than the alternative model.

5.2. Hypothesis tests

Hypothesis 1 predicted that cognitive trust in the service provider would positively influence a consumer's perceived utilitarian value, whereas hypothesis 2 predicted that affective trust in the service provider would positively influence a consumer's perceived hedonic value. The results showed that the influence of cognitive trust on utilitarian value ($\beta=0.54$, $CR=9.99$, $p<0.001$) and affective trust on hedonic value ($\beta=0.32$, $CR=7.40$, $p<0.001$) were in the hypothesized direction and the paths were statistically significant; thus, H1 and H2 were supported. Hypothesis 3, which predicted that perceived utilitarian value resulting from cognitive trust would positively influence a consumer's repurchase intention, is supported ($\beta=0.65$, $CR=12.94$, $p<0.001$). Hypothesis 4, which predicted perceived hedonic value resulting from affective trust would positively influence a consumer's advocacy intention,

Table 4
The result of competing structural models.

Path	Proposed model			Rival model		
	Factor loading (β)	CR	p-value	Factor loading (β)	CR	p-value
CT→UV	0.54	9.99	0.000			
AT→HV	0.32	7.40	0.000			
UV→HV	0.69	13.04	0.000			
RP→AD	0.66	13.46	0.000			
UV→RP	0.65	12.94	0.000	0.20	4.27	0.000
HV→AD	0.18	3.70	0.000	0.50	9.17	0.000
UV→AD				0.50	1.04	0.299
HV→RP				0.48	8.93	0.000
CT→AD				0.17	3.57	0.000
CT→RP				0.20	4.20	0.000
AT→AD				0.22	4.60	0.000
AT→RP				0.30	6.25	0.000
Model fit						
measurement						
Chi-square (χ^2)		448.34			1074.26	
Degree of freedom (df)		128			127	
Probability level		0.00			0.00	
CFI		0.95			0.84	
IFI		0.95			0.84	
NFI		0.93			0.83	
TLI		0.94			0.81	
PNFI		0.78			0.69	
RMSEA		0.08			0.14	

CFI=comparative-fit index; IFI=incremental-fit index; NFI=normed-fit index; TLI=Tucker–Lewis index; PNFI=parsimony normed fit index; RMSEA=root mean square error of approximation.

is supported ($\beta=0.18$, $CR=3.70$, $p<0.001$). On the relationship between cognitive and affective components of value perceptions, hypothesis 5 predicted that the affect-based hedonic value is influenced by the cognition-based utilitarian value. On the relationship between economic and social behavioral intentions, hypothesis 6 predicted that the affect-based advocacy intention is influenced by the instrumental-based repurchase intention. The result showed that the influence of utilitarian value on hedonic value ($\beta=0.69$, $CR=13.04$, $p<0.001$), and repurchase intention on advocacy intention ($\beta=0.66$, $CR=13.46$, $p<0.001$) were in the hypothesized direction and the paths were statistically significant; therefore, H5 and H6 were supported.

In sum, the findings support that the overall model of trust–value–loyalty in banking relationship is valid and that each of the predicted relationships among these variables are statistically significant in hypothesized positive directions (see Fig. 2). The findings demonstrate the importance of (i) cognitive trust on utilitarian value that affects a consumer's repurchase intention, and (ii) affective trust on hedonic value that affects a consumer's advocacy intention. The findings also confirmed that the hedonic

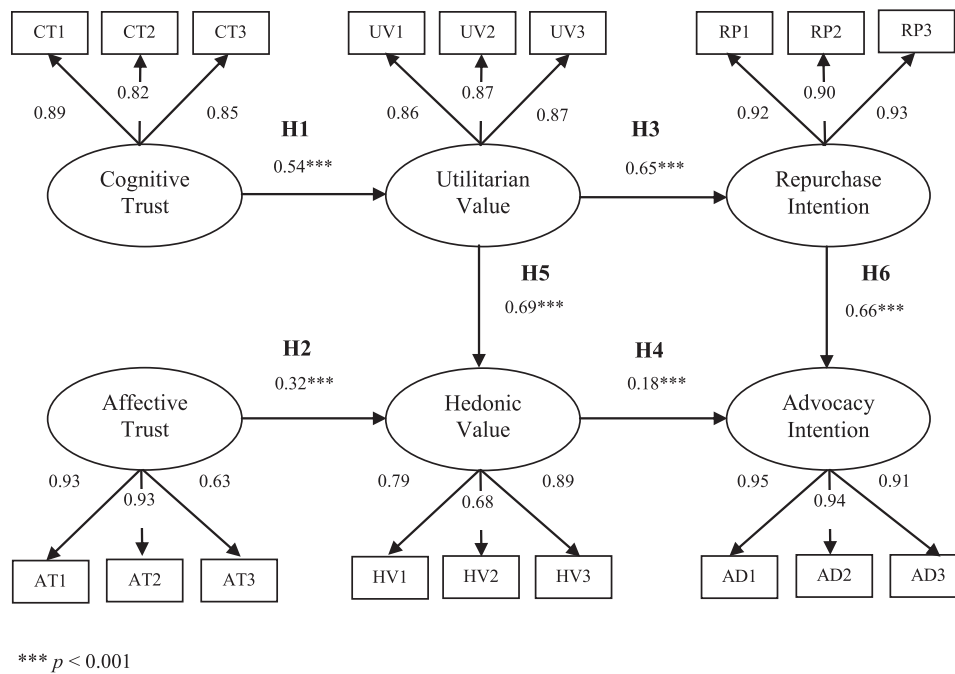


Fig. 2. The structural equation model of trust–value–loyalty.

value is post-cognition and advocacy intention is a consequence factor of repurchase intention.

6. Discussion and implications

The findings provide both theoretical and practical implications. Previous studies investigate the interrelationships of trust, value, loyalty in one-dimensional ways and the complexity of multi-dimensional variables is not captured. The findings suggest that consumers' loyalty behavioral intentions are essentially the result of intrinsic and extrinsic perceptions of trust and perceived value of consumers. This provides a model that is both parsimonious, with three conceptual variables (trust, perceived value and loyalty intentions), yet enriched (by dividing up each variable into two components). The model captures both cognitive and affective pathways, and also integrates them. The model is strongly supported by overall fit to the banking industry data that was collected, and by statistical significance for each of the hypothesized relationships in the model. Furthermore, four of the six effects are relatively strong (i.e., β coefficients ranging from 0.54 to 0.69). Another finding is that cognitive effects appear stronger than affective effects. That is, the utilitarian value effect on hedonic value is very strong ($\beta=0.69$), and much stronger than the affect trust effect on hedonic value ($\beta=0.32$). Similarly the repurchase intentional effect on advocacy intention is very strong ($\beta=0.66$) and much stronger than the hedonic value effect on advocacy intention ($\beta=0.18$). Generally speaking, of the two pathways, cognitive pathway effects were stronger (β s 0.54, 0.65) than their respective affective pathway effects (β s 0.32, 0.18). This result may be characteristic of the more utilitarian industries (such as banking). In sum, researchers should think about loyalty behavioral intentions in a more sophisticated way: two dimensional rather than one dimensional. Furthermore, this is another example to researchers of how understanding cognitive and affective paths adds deeper insights and a more realistic model.

There are several managerial implications. It helps managers understand how the key outcome of loyalty behavioral intentions are formed, and therefore potentially how to improve achieving

those. The findings suggest managers would think more richly about the causes of loyalty intentions if they thought in terms of cognitive and affective pathways (two dimensions, instead of one). Furthermore, while the affective pathway should not be neglected, the cognitive pathway should be emphasized, as its effects are stronger. Building cognitive trust and delivering utilitarian value are demonstrated to be very important in achieving repurchase intentions, and also in increasing hedonic value and advocacy intention. Affective trust is also important, and not to be seen as trivial. Trust-building strategies should be focused on consumers' trust in and friendship to the service provider. Hedonic value is also demonstrated to have a significant effect, on advocacy intentions, albeit smaller.

7. Conclusions, limitations and future research

The research has several limitations and offers several avenues for future research. First, the study is limited by the banking services context in which it takes place. Variables had to be included that were key for this industry, such as cognitive trust, which may be less important in other services. The more affective industries (including entertainment such as concerts) could have a stronger affective pathway. Similarly, affective trust and hedonic value are shown to be important in banking, but may not be so for other services such as for plumbers. The generalizability issue does not eliminate the contribution of the study, but, as with much of marketing, the model must be adapted to different contexts. The banking industry itself is very large and important, and contextualizing the research allows for strong findings for this and similar industries. Further studies could examine different service industry settings so that the generalizability of the findings could be assessed, and also suggestions for adapting the model be tested. We expect the model generalizes to other people-oriented services that share common characteristics with the banking industry, such as the health care, consultancy, legal, and real estate sectors. In-depth qualitative studies, such as the focus groups commonly conducted in marketing practice, could investigate consumer trust–value–loyalty relationships in other service-based industries

and provide more confidence to transfer or adapt the results of the model.

Second, this study, like many questionnaires, is limited to consumer self-report data. Future studies could consider actual behavioral measures to calibrate how the self-report data predicts actual behavior for this model.

Third, the findings are also limited as based on cross-sectional data, whereas loyalty is a dynamic process; thus longitudinal research could be considered to fully understand how loyalty arises and evolves.

Fourth, the study examines the banking relationship in the traditional banking environment. The traditional banking environment is still very important, but e-banking is growing and how the model works in the e-banking environment could be assessed. Perhaps cognitively connected consumers are using the e-banking channels more than those affectively connected to their banking service provider.

Finally, the current conceptual framework concentrates on six key variables and their pathways. For future research, propositions related to the moderating effects of additional variables could also be addressed, for example the moderating role of culture value in the model that captures culture differences in emotion and rationality. The influence of culture in consumption has become ubiquitous in today's globalization markets, especially for potentially large cultural differences such as East vs West, thus the inclusion of the moderator role of culture value would add to the development of a more complete theoretical framework.

Notwithstanding these limitations, our research makes a number of significant contributions. It examines a two dimensional view of consumer trust, perceived value, and loyalty behavioral intentions in a service relationships framework. Thus, we theoretically extend the previous research in this area. We derive specific hypotheses that are grounded in theory. Moreover, we test these hypotheses based on a national sample. We establish the measurement properties of all our constructs and test these hypotheses using appropriate structural equation modeling methodology. All of our hypotheses are supported and have substantial theoretical and managerial implications. We hope that our effort will inspire more research in this area.

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