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A model of customer e-loyalty in the online banking

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Abstract

With the rapid growth of online banking, it has been reinforced that companies need to build and maintain loyal customers. This study models e-loyalty as the endogenous variable that includes three exogenous variables (website quality, corporate image and perceived social presence) and two mediating variables (satisfaction and trust). The model was empirically tested using data collected from an online survey of Internet forums based in Indonesia. Using structural equation modeling, the results of statistical analysis show that the model is an adequate fit to the data. All the causal relationships in this model were found to be significant. We discuss some interesting results and provide several implications for those banks which want to enhance loyalty of e-banking customers.

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1. Introduction

With the rapid growth of Internet banking, it has been reinforced that companies need to build and maintain loyal customers. The profit impact of having a loyal customer base to a given company may be worth up to 10 times as much as its average customer (Health 1997; Newell 1997). Thus, in order to reap the benefits of having loyal customers, it is critical that companies understand the antecedents of building customer loyalty on the Internet (e-loyalty)(Srinivasan *et al.* 2002; Floh and Treiblmaier 2006).

Research into the antecedents of e-loyalty in consumer services has come into sharper focus. Srinivasan *et al.* (2002), for instance, identifies eight factors that potentially impact e-loyalty. Anderson and Sromovasam (2003) investigate the impact of satisfaction on loyalty in the context of electronic commerce. Semeijn *et al.* (2005) models the combined effects of online and offline service components on e-loyalty. Floh and Treiblmaier's (2006) analysis examines the effects of overall satisfaction and trust on e-loyalty in online banking services.

This research integrates previous research in the field of e-loyalty to present a conceptual framework of e-loyalty and its antecedents. Specifically, little is known about the intricate relationships between perceived website quality, perceived corporate image, perceived social presence, consumer satisfaction, consumer trust, and e-loyalty. The study is especially significant given the growth of Internet banking and its high potential for building individual relationships on the World Wide Web (WWW) (Kierzkowki *et al.* 1996). This research will contribute to an increased understanding of consumer online banking behavior, to determine the key antecedents that influence e-loyalty, and to offer suggestions for developing Internet banking strategies.

2. Literature Review

As noted by Reichheld and Schefter (2000), the secret weapon on the web is to cultivate loyal customers. Not only do loyal customers increase sales and profits of the business, they also enable it to reduce costs associated with attracting new customers. In particular, since the competition is just a mouse click away, e-loyalty appears to be essential for online banks both in an economic as well as a competitive sense (Semeijn *et al.* 2005).

While there is rich body of literature on Internet banking ranging from Sathye's (1999) study in Australia to Ndubisi and Sinti's (2006) research in Malaysia, more research still need to be conducted to investigate how to keep customers loyal to an online bank (Floh and Treiblmaier 2006).

The concept of e-loyalty extends the traditional loyalty concept to online consumer behavior. Cyr (2004, 2005) defined e-loyalty as intention to revisit a website or to make a transaction from it in the future. Strauss and Frost (2001) suggest that, given the relatively compressed buying cycle time, the main emphasis of e-loyalty should be on converting behavioral intent to immediate buying behavior. However, behavioral loyalty is much more complex and harder to achieve in the virtual than in the real world, where the customer often has to make the purchase decision with limited amount of information (Gommans, Krishnan, and Scheffold 2001).

An attempt to add more to our understanding of e-loyalty in online banking environment, this research proposed a model (Figure 1) that describes e-loyalty as the endogenous variable that includes three exogenous variables (website quality, corporate image and perceived social presence) and two mediating variables (satisfaction and trust).

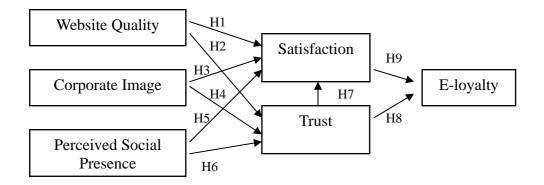


Figure 1: Conceptual framework

2.1 Website Quality

In contrast with traditional banking, online banking customers typically do not interact with individuals. Instead, they interact with an online bank through a user interface that enables them to initiate the desired transactions themselves. Thus, customers are more likely to visit and transact at websites that exhibit highly desirable qualities.

Previous research has identified the relationship between website quality, satisfaction, and trust. Bhattacherjee (2001), for example, found that experience on the brokerage website is a significant predictor of satisfaction with the brokerage service. A qualitative study of online pharmacy patrons found that website quality is associated with customer satisfaction (Yang *et al.* 2001). Floh and Treiblmaier (2006) investigated the importance of antecedents of e-loyalty in the financial service industry. Their research found that website quality has a direct impact on both satisfaction and trust. Accordingly, we expect website quality to have a positive influence on both satisfaction and trust:

H1: Website quality has a positive effect on consumer satisfaction of online banking.

H2: Website quality has a positive effect on consumer trust of online banking.

2.2 Corporate Image

According to Grönroos (1990), corporate image functions as a filter which influences customer perceptions of the operation of the company. Corporate image can be seen as customer affective preconceptions towards the company, which was created by continuous experiences (Zins 2001). Hence, it is the result of an evaluation process that creates an overall impression on the minds of consumers about a firm (MacInnis and Price 1987; Barich and Kotler 1991).

Corporate image has found to be inextricably linked with customer satisfaction (Nguyen and LeBlanc 2001). It has been considered to create a halo effect on customer satisfaction (Andreassen and Lindestad 1998). Previous research has found the support for the direct and positive effect of corporate image on customer satisfaction (Nguyen and LeBlanc 2001). We assume that the same effect will occur in the online banking environment.

Corporate image is one of the most influential factors in determining the degree of trust. Yoon (2002) found that corporate image significantly affects the trust of the customer toward specific website. Accordingly, we expect corporate image to affect customer trust toward online banking.

H3: Corporate image has a positive effect on consumer satisfaction of online banking. H4: Corporate image has a positive effect on consumer trust of online banking.

2.3 Perceived Social Presence

Social presence refers to the extent to which a medium allows users to experience psychological presence of others (Fulk *et al.* 1987). A medium that can be characterized as social presence is in its capacity to provide human warmth. Hence, a medium is perceived to be warm if it creates a feeling of human contact, sociability, and sensitivity (Yoo and Alavi 2001). Examples of website features that conveys social presence include personalized greetings (Gefen and Straub 2003), human audio (Lombard and Ditton 1997), human video (Kumar and Benbasat 2002), as well as emotive text and pictures of humans (Hassanein and Head 2007).

Gunawardena and Zittle (1997) examined the social presence of a computer-mediated conferencing environment and found that social presence is a strong predictor of overall course satisfaction. The research of Dixon *et al.* (2006) has shown that learner satisfaction is greater when they have high levels of social presence.

Social presence of websites has been found to help reduce ambiguity, increase trust, and encourage users to purchase with lower levels of dissonance (Simon 2001). Similar results were also found in the work of Hassanein and Head (2007) whereas higher user perceptions of social presence on website selling apparel result in higher levels of trust in the online vendor. Accordingly, we expect consumer perception of social presence to affect consumer satisfaction and trust toward online banking.

H5: Consumer perception of social presence has a positive effect on consumer satisfaction of online banking.

H6: Consumer perception of social presence has a positive effect on consumer trust of online banking.

2.4 Trust

Moormann *et al.* (1993) defined trust as the willingness to rely on an exchange partner in which one has confidence. Online trust can be seen as users interacting with transactional or informational websites that encompasses an attitude of confident expectation in an online situation or risk that one's vulnerabilities will not be exploited (Corritore *et al.* 2003). The lack of trust has been found to be one of the major obstacles to the popularity of Internet banking (Rexha *et al.* 2003).

Trust has been recognized as an important antecedent in most models dealing with relationships that include loyalty or satisfaction as dependent variables (Schaupp and Bélanger 2005). Razzaque and Boon (2003), for instance, found a significant effect of trust on satisfaction in the context of channel relationship. Trust was also found to play a significant role in affecting willingness to transaction as well as loyalty in online vendors (Flavian *et al.* 2005; Luarn and Lin 2003; Ribbink *et al.* 2004; Gefen 2002). Following previous research findings, we hypothesize a positive effect of trust on both satisfaction and loyalty toward online banking.

H7: Consumer trust has a positive effect on consumer satisfaction of online banking.H8: Consumer trust has a positive effect on e-loyalty in online banking.

2.5 Satisfaction

Customer satisfaction has attracted much attention in the literature owing to its potential influence on consumer behavioral intentions and customer retention (Cronin *et al.* 2000). Customer satisfaction is the degree of overall contentment felt by the customer (Hellier *et al.*

2003), resulting from the outcome of a comparison process between expectations and perceived performance (Wirtz and Bateson 1999).

Much research and numerous empirical studies have shown the level of satisfaction experienced by the customer affects loyalty (e.g., Oliver 1997; Drake *et al.* 1998; Nguyen and LeBlanc 2001; Mountinho and Brownlie 1989; Mountinho and Smith 2000).

Satisfaction has been shown to be positively related to loyalty (Hallowell 1996; Strauss and Neuhaus 1997; Anderson *et al.* 1999; Ellinger *et al.* 1999; Oliver 1999) and this effect also occurs in online environment (Cho *et al.* 2002; Gummerus *et al.* 2004). Shankar *et al.* (2003) indicated that the effect of satisfaction on loyalty is stronger online than offline. Consistent with previous findings we hypothesized a positive impact of customer satisfaction on customer loyalty.

H9: Consumer satisfaction has a positive effect on e-loyalty in online banking.

3. Research Method

3.1 Participants and Procedure

The model was empirically tested using data collected from an online survey of Internet forums based in Indonesia, such as marketing-club@yahoogroups.com, manajemen@yahoogroups.com, ITCENTER@yahoogroups.com, and hanyawanita@yahoogroups.com.

Before sending the questionnaire in the main study, a pretest was first conducted to native speakers from Indonesia. No incentives were offered for their participation, hence the information they provided was completely voluntary. The final questionnaire was fine tuned based on the feedbacks given by the pretest samples. To obtain responses from forum members, this study sent out private messages to registered members who participated in the respective forums. The questionnaire was translated from English to Bahasa using the back translation technique.

A total of 800 questionnaires were sent out, and 213 valid surveys were obtained. The sample consists of 97 female (45.54%) and 116 male respondents (54.46%). Majority of the respondents have college degree (70.42%). The average monthly salary was about 7,000,000 Indonesian Rupiah (USD 715). The average time span (experience) of using Internet banking amounts to 3 years, with frequency visiting the bank websites 2-3 times a week. Moreover, more than sixty percent of the respondents (66.20%) using Bank Central Asia (BCA) as their primary Internet banking with a large majority respondents using the banking facilities for account statement, transaction, and money transfer.

3.2 Construct Measurement and Validation

The scale items were taken from previous studies and modified to suit the context of the current study. The detail of all measurement items is listed in Appendix A. Structural equation modeling (SEM) was adopted to validate the instruments for unobserved constructs and test the research models. The reliability of measurement items was assessed by the internal consistency method. Cronbach's alpha provides a reasonable estimate of internal consistency. These values range from 0.79 to 0.92 (See Table 1). All values surpass the recommended value of 0.6 or 0.7 (Nunnally 1978).

Convergent validity was also assessed. Convergent validity of research instruments is commonly estimated by assessing item reliability, construct reliability, and average variance extracted (AVE) (Fornell and Larcker 1981). All constructs exceed the recommended level of

construct reliability 0.70 and AVE 0.5 (Chau 1997). The details of the convergent validity test
in Table 1 show that these results provide support for the convergent validity.

Latent variable	Item name	Factor loading	Reliability	AVE
Web site	X1	0.90	0.87	0.71
quality	X2	0.90		
÷ •	X3	0.85		
Corporate	X4	0.77	0.81	0.63
image	X5	0.74		
-	X6	0.76		
Perceived	X7	0.85	0.83	0.60
social	X8	0.82		
presence	X9	0.89		
Satisfaction	Y1	0.77	0.92	0.62
	Y2	0.84		
	Y3	0.72		
	Y4	0.83		
	Y5	0.78		
Trust	Y6	0.78	0.84	0.55
	Y7	0.75		
	Y8	0.80		
E-loyalty	Y9	0.91	0.79	0.56
	Y10	0.88		
	Y11	0.96		

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4. Analysis and Result

Structural equation modeling (SEM) analysis was also employed to assess the proposed model. SEM has been suggested as being useful for examining theoretically justified model such as the one in this study (Bagozzi and Yi 1988; Bentler 1989). The maximum likelihood estimation (MLE) was used to estimate variables.

The test results indicate that all fit indices (GFI=0.88, AGFI=0.84, NFI=0.94, NNFI=0.94, CFI=0.94, IFI=0.95, RMSEA=0.08) correspond with their recommended values commonly suggested in prior literature (Chau 1997), providing support for an adequate model fit with data gathered. The path coefficients show the strengths of the relationships between the dependent and independent variables. Figure 2 shows the results of the structural model.

The statistical significance of all individual relationships provides empirical support for the hypotheses. In order of decreasing importance, variance in satisfaction seems to be determined by: website quality ($\beta = 0.27$, t = 4.12, p<0.01), corporate image ($\beta = 0.21$, t = 3.72, p<0.01), and perceived social presence ($\beta = 0.17$, t = 3.32, p<0.01). H1, H3, and H5 were supported. With regard to trust, our analysis reveals that trust is determined by, in order of decreasing importance, website quality ($\beta = 0.48$, t = 4.89, p<0.01), corporate image ($\beta =$ 0.44, t = 5.04, p<0.01), and perceived social presence ($\beta = 0.30$, t = 4.24, p<0.01). We therefore accept H2, H4, and H6.

Consistent with H7 and H8, trust has a significant influence on both satisfaction ($\beta =$ 0.78, t = 6.51, p<0.01) and e-loyalty (β = 0.23, t = 3.41, p<0.01). Finally, in accordance with H9, satisfaction has a strong positive influence on e-loyalty ($\beta = 0.49$, t = 2.63, p<0.01).

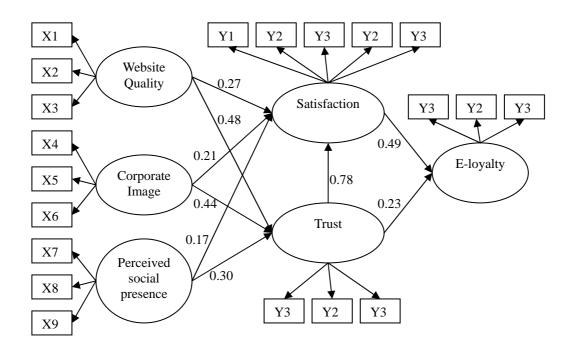


Figure 2: Structural equation model with path coefficients

5. Discussion and Conclusion

5.1 Discussion

The objective of the current research is to study a model that describes e-loyalty as the endogenous variable that includes three exogenous variables (website quality, corporate image and perceived social presence) and two mediating variables (satisfaction and trust). The model demonstrated adequate fit with the data. Further, all the causal relationships in this model were found to be significant. We discuss some interesting results and provide several implications for those banks which want to enhance loyalty of e-banking customers.

Our results reveal that loyalty of e-banking customers is directly affected by satisfaction ($\beta = 0.49$) and trust ($\beta = 0.23$) in an online bank. Trust is also found to have a direct effect on satisfaction ($\beta = 0.78$). Based on the path coefficient analysis results, satisfaction mediates the relationship between trust and e-loyalty. The direct path coefficient between trust and e-loyalty ($\beta = 0.23$) is smaller than the indirect path coefficient through satisfaction (β : 0.49*0.78=0.38). Therefore, it is evident from the research findings that online banks can achieve customer loyalty through improving customer satisfaction and providing trustworthy banking environment, with satisfaction exhibiting more critical effect.

Our results indicate that both satisfaction and trust are determined by consumer perceptions of website quality, corporate image, and social presence, with website quality exhibiting the strongest impact. Given the importance of website quality, online banks have to design their web site with a view to enhancing satisfaction by providing ease of use, usefulness, enjoyment, and the speed of transaction (Pikkarainen *et al.* 2004; Floh and Treiblmaier 2006).

In addition, online bank must build a strong brand image in order to signal satisfaction and trustworthiness to its customers given that users of Internet banking do not have well-known contact persons and must rely completely upon the website. Online banks should also design rich multimedia content that will engender a human warmth feeling such as providing virtual assistant for customer support, online video tours and demos, and online interactive features.

5.2 Limitations and Future Research

One limitation originates in the biases inherent in most research. The current study only considers Indonesian online banking users and hence we should be cautious about the generalization of the results. However, while this limitation is noted, it should not undermine the results because the increasing use of online banking. More research is needed to further validate the model with a population of a different type of online banking users. It will be interesting to know if the model can hold across different cultures. Introducing moderating effects of user characteristics is also another way to further the knowledge such as need for cognition and degree of elaboration. Another intriguing line of research would be to investigate the longitudinal effects of trust and satisfaction on e-loyalty.

Appendix

Website quality

Five-point Likert scale of strongly disagree to strongly agree

(1) Website design:

- 1. Learning to operate the website is easy for me.
- 2. The display pages within the website are easy to read.

(2) Website structure:

- 1. The website loads quickly.
- 2. When I use the website there is very little waiting time between my actions and the website's response.

(3) Website content:

- 1. The website adequately meets my information needs.
- 2. It is easier to use the website to complete my business with the bank than the others facilities.

Corporate image

Five-point Likert scale of strongly disagree to strongly agree

- 1. The bank has a good reputation.
- 2. The bank has a better image than its competitor.
- 3. The bank fulfills the promises that it makes to its customers.

Perceived social presence

Five-point Likert scale of strongly disagree to strongly agree

- 1. There is a sense of human contact in the website.
- 2. There is a sense of personalness in the website.
- 3. There is a sense of socialibility in the website.
- 4. There is a sense of human warmth in the website.

Trust

Five-point Likert scale of strongly disagree to strongly agree

- 1. I can trust this website.
- 2. I trust the information presented on the website.
- 3. I feel this online bank would provide me with good service.

Satisfaction

Five-point Likert scale of strongly disagree to strongly agree

- 1. I am completely happy with my Internet banking.
- 2. I am very pleased with what the Internet bank does for me.
- 3. My experience with the Internet banking have always been good.
- 4. Overall, I am very satisfied with my Internet banking.
- 5. If I had to do it all over again, I would still choose to use the Internet banking.

E-loyalty

Five-point Likert scale of strongly disagree to strongly agree

- 1. I would use this bank's website again.
- 2. I would consider using this bank's website in the future.
- 3. I would consider transaction with this bank's website in the future.

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