Asia Pacific Journal of Marketing and Logistics

When do interest rates matter? Two methodological approaches to loyalty
Huifeng Pan, Hong-Youl Ha,

Article information:
To cite this document:
Permanent link to this document:
https://doi.org/10.1108/APJML-06-2018-0229
Downloaded on: 30 June 2019, At: 08:30 (PT)
References: this document contains references to 66 other documents.
To copy this document: permissions@emeraldinsight.com
The fulltext of this document has been downloaded 3 times since 2019*

Access to this document was granted through an Emerald subscription provided by emerald-srm:226873 []

For Authors
If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit www.emeraldinsight.com/authors for more information.

About Emerald www.emeraldinsight.com
Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.
Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

*Related content and download information correct at time of download.
When do interest rates matter?
Two methodological approaches to loyalty

Huifeng Pan
Shanghai University of Political Science and Law, Shanghai, China, and
Hong-Youl Ha
Department of International Trade, Dongguk University, Seoul, The Republic of Korea

Abstract
Purpose – Changes in consumers’ awareness of interest rates (deposits and loans) are important for making financial decisions, particularly in the banking industry. However, little is known about the effect of consumer awareness on customer orientation and loyalty. The purpose of this paper is to examine how changes in consumers’ awareness of interest rates in Korea can influence customer loyalty, considering banks’ efforts to improve customer orientation. The authors explicitly rationalize the fact that consumers’ awareness of interest rates can play an important role in moderating the strength of the relationship between customer orientation and loyalty.

Design/methodology/approach – The data were collected from participants (n = 327) who had made banking transactions based on their real income in Seoul. Participants mainly focused on personal loans and debts, and most people had banked with a specific bank (one of the main Korean banks) for longer than three years. The authors tested the effect of interest rates using two methodologies, namely, a field study using SEM and an experimental design.

Findings – The study tested these relationships with survey data and two simulated experiments. The findings indicated that the influence of customer orientation on customer loyalty decreased with the increase in loan interest rate awareness. Moreover, the customer orientation-loyalty link weakened with the increase in awareness of central bank base rates. Conversely, the awareness that loan rates were decreasing strengthened the relationship.

Research limitations/implications – Banks need to know the importance of periodic consultation services with valuable consumers who transact with one or more banks because changes in the consumer awareness of interest rates influence customer loyalty (or switching behavior), particularly when their awareness of loan interest rates increases.

Originality/value – This paper is, to the best of the authors’ knowledge, the first to investigate the consequence of such a change in consumers’ awareness of both deposit and loan interest rates with regard to the relationship between customer orientation and loyalty.

Keywords Financial services marketing, Consumer loyalty, Customer orientation, Interest rates

Introduction
A customer-focused business culture is widely recognized to strengthen successful organizations and be closely related to customer loyalty (Agarwal et al., 2003). The banking service sector particularly emphasizes customer orientation to increase customer loyalty (Johlke and Lyer, 2017; Pousa et al., 2018); however, such loyalty can vary when economic situations change rapidly (Hampson and McGoldrick, 2015). For example, when the personal loan interest rate in Korea dropped from 4.10 percent in December 2013 to 3.78 percent in August 2014 (The Bank of Korea, 2015), bank loan customers switched to other competitive
banks (Ha, 2011). This case follows the explicit assumption that debt customers strongly consider switching actions when competing banks offer lower loan interest rates (Ioannidou and Ongena, 2010).

Previous studies on consumer financial decision making that were reported in a special issue of the *Journal of Marketing Research* (*JMR*, 2011) were primarily focused on debt account aversion (Amar et al., 2011) or increasing savings behavior for retirement (Hershfield et al., 2011). In this new study, we explore whether customers are sensitive to interest rate levels and, specifically, whether a strong link exists between customer orientation and loyalty. Many people struggle with repaying their debts during periods of economic downturn (e.g. home mortgages, credit card loans, and personal loans across financial markets), which thereby results in switching behaviors. Identifying the different roles of interest rates will explain how two moderators (deposit and loan interest rates) can significantly affect customer orientation and, subsequently, customer loyalty. This approach offers a means for banks to re-evaluate their past performance and redesign their current strategies positively.

This problem of maximizing outcomes across the entire product category shows how customer orientation influences customer loyalty when consumers’ awareness of bank interest rates (affecting deposits or loans) is low or high. Certainly, the interest rates that a financial institution charges its customers can negatively affect the institution’s competitiveness, and consequently, certain customers will leave, thus damaging the institution’s performance in terms of customer loyalty (Ha, 2011). Similarly, whether or not interest rates are consumers’ main concern from a psychological perspective remains a question. However, the effect of the relationship may vary when choosing between banks for a loan because banking customers may be insufficiently sensitive to interest rates when deciding between loans (Shu, 2010). However, customers with large deposits or loans become considerably sensitive to interest rates as they may represent significant gains or losses (Ha and Choi, 2010). Although one may argue that rates always matter (Mild et al., 2015), this study strongly emphasizes interest rates in financial services when justifying changes in customer orientation and loyalty.

Virtually, no prior consumer research was conducted on how consumers’ awareness of interest rates can affect the relationship between customer orientation and loyalty. Although customers can simply search for the best interest rates among competing banks, relevant factors (e.g. online services, location and customer services) affect the proposed relationship (Ennew and Binks, 1996); respective market characteristics and the degree of competition (regardless whether the market contains small-scale or large-scale banks) govern the interest rates that banks offer in a market. Such explanations assume consumers comprehensively understand how the changes in interest rate will affect their behavior over time. In this study, we instead show that consumers deeply and fundamentally misunderstand interest rates. Saving-focused consumers’ awareness of customer orientation and loyalty increases when interest rates increase, whereas the loan-focused counterpart decreases. However, people underestimate how interest rate changes really affect consumer awareness of customer orientation and loyalty (as shown in the Experiments section). They also tend to underestimate how interest rate changes are dynamic over time for saving and loan accounts (Eisenstein and Hoch, 2005). Their underestimation suggests the necessity of an alternative investigation in service logic domains.

The oversight in the existing literature is surprising given the importance of interest rates, as customers’ perception of interest rates should play a pivotal role in their overall banking service evaluation. Consequently, a gap in the literature exists regarding the relationship between customer orientation and customer loyalty when interest rates change and whether such changes should affect this theoretical link. As difficult-to-evaluate attributes such as interest rates, tend to receive less attention (Pacini and Epstein, 1999), this
study is important to the financial market discourse because it offers evidence of the related role of interest rates in the relationship between customer orientation and customer loyalty.

Consistent with this observation, this study contributes to the existing literature in three ways. First, it demonstrates how deposit and loan interest rate levels can test theories about the customer orientation-loyalty link. Second, it presents the first evidence of customer sensitivity, suggesting that consumers’ awareness of interest rates influences the customer-loyalty link. Finally, most people tend to avoid psychological or financial uncertainty (Herzenstein et al., 2011; Liu et al., 2013); hence, a better understanding of the changes in consumers’ awareness of interest rates is vital in showing how banks affect their customers’ actions.

Theoretical framework

We developed the conceptual framework presented in Figure 1 on the basis of extant customer orientation and meta-analysis research (Kirca et al., 2005). The framework simply depicts the relationship between customer orientation and loyalty and the effects of two moderators, consumers’ awareness of deposit and loan interest rates, on that relationship. The nature of these moderators can affect the direction and/or strength of the relationship between a predictor variable (orientation) and a dependent variable (loyalty) (Baron and Kenny, 1986). For example, when a bank raises its interest rate, loan product-based customers are likely to seek alternatives, resulting in switching behavior (e.g. Ha and Choi, 2010). Customer loyalty is significantly affected by interest rates (Baumann et al., 2005); however, research on the effects on the strength of the relationship between orientation and loyalty is limited.

Traditional relationship between customer orientation and loyalty

Customer loyalty is well known and essentially considered as a basic principle of customer-oriented marketing in the retail bank industry (Beerli et al., 2004). Previous studies on loyalty have identified several types of loyalty, such as attitudinal, or affective, cognitive and behavioral. According to Oliver (2010, p. 433), “customers are thought to first become loyal in a cognitive sense, then later in an affective sense, still later in a conative sense, and finally in a behavioral sense.” In this paper, we specifically focus on behavioral loyalty because when interest rates are changed, customers are likely to stay with or leave their current banks (Ha, 2012; Ha and Choi, 2010).

From our point of view, behavioral loyalty refers to the use or the willingness to recommend a given service or product (Inoue et al., 2017). From the bank’s perspective, both are desirable consumer behaviors (Barnabas, 2010; Romanuk and Nemycz-Thiel, 2013). Within the retail bank industry, behavioral loyalty has often been measured using the probability of reusing or the likelihood of recommending at banking services, and these measures are directly linked to bank performance.
The research literature is rich with studies examining the importance of developing customer orientation. The term “service orientation” is sometimes used (Cran, 1994), although it is often described as a component of another term, “market orientation,” for service organizations (Agarwal et al., 2003). Although several researchers have used similar terms depending on the nature of their research, Jaworski and Kohli (1993) have described the theory of market orientation as the implementation of a marketing concept that is centered on customer orientation. Thus, we have based our study on the market orientation theory, in which customer orientation is an implicit construct.

Customer orientation is conceptualized as the application of employees’ specialized activities to identify, analyze, understand and meet customer needs (Ha and John, 2010). Vargo and Lusch (2004) supported this conceptualization by arguing that the term “service” directly points to providing benefits and assistance, which emanates from employee behaviors and results in perceived performance and outcomes (Dean, 2007). In particular, the customer orientation-performance correlation is stronger for the performance measures of manufacturing firms than that of service firms (Kirca et al., 2005). However, customer orientation is positively associated with customer loyalty because most service climate constructs map well onto customer orientation as a key common element of customer levels (Schneider et al., 1998). Given that many customers hold several bank loans or are likely to react sensitively to changes in their awareness of interest rates, does the traditional relationship between the two constructs remain valid?

**Two moderators of the customer orientation-loyalty link**

Financial researchers have long focused on “interest rate sensitivity” to predict banking users’ further actions or other returns rather than addressed the salience of interest rates themselves. Interest rate sensitivity describes the relative difference in customer’s judgment of interest rate differences among competing banking products. Customer’s judgment is considered a broad concept of interest rate awareness, whereas consumer awareness of both loan and deposit interests refers to their level of awareness of the real rate at which each characteristic of the two interest rates clearly delivers to banking customers (Ha and Choi, 2010). For example, if the Bank of Korea lowers its base rate by 0.25 percent, banking customers will be unsure about the potential second-wave effects on the real interest rates that they will receive from the banks. However, consumer awareness of the real interest rate, which is dependent on the base rate in the banking industry, can provide them with a clear message and better understanding of initial and subsequent interest rate changes. Logically, the interest rate in this study is the general bank/market interest rate, which reflects the prevailing rate of interest on cash deposits or loans, determined by changes in the Bank of Korea’s base interest rate.

Stango and Zinman (2009) demonstrated that consumers tend to greatly underestimate how interest accumulates over time. However, interest rates are critical in considering loans and deposits during financial decision making because customers are considerably sensitive to interest rates when they choose financial services or when interest rates change. Consistent with our argument, a recent consumer research study showed that banking customers were willing to switch their transactions to another bank or were compelled to accept a less favorable rate if they had no choice (Kim and Jun, 2011). Furthermore, in the current online-to-offline and information transparency era, myc4.com recently revealed that investors still requested high interest rates, but borrowers tended to avoid repayment when experiencing high interest rate levels because of the high risk of default or losing money (Mild et al., 2015). For reverse mortgages in Korea, people are still sensitive to the rising interest rates because reverse mortgages’ value decreases rapidly (Ping and Kim, 2015). When interest rates increase, monthly payments decrease because the guarantee rate increases.
The consumer situation theory states that changes in consumers’ awareness of interest rates may influence the relationship between customer orientation and loyalty in systematic ways (Ha and Choi, 2010). Thus, the linkage may depend upon consumers’ level of awareness of interest rates and their shift along with perceived changes in these levels. This theory points out that consumers are willing to accept the positive benefits of purchasing, owning or consuming economic products and services (Foxall et al., 1998). For example, if the level of interest rate awareness changes, then banking customers who mainly transact through deposits (or loans) may consider switching when a competitor offers them a more attractive interest rate. If this awareness is positive, the relationship between customer orientation and loyalty with the current bank may weaken because consumer behavior is closely associated with their level of interest rate awareness (Calem and Mester, 1995), although a banking consumer may have a long-term relationship with a specific bank. Thus, although customer orientation seemingly has a positive direct effect on the value (or customer loyalty) the organization generates for the customer, the interest rate still negatively affects the relationship between customer orientation and loyalty.

It may be worth examining whether interest rates are the consumers’ main concern from a psychological perspective because consumers can deviate from rational principles when managing deposits and loans for many reasons. However, during their experience with financial services, consumers can form and modify their judgments about real interest rates, thereby possibly affecting their reactions (Sorg and Tuusis, 2009). Berry (1995) also demonstrated that the first stage of relationship marketing involves providing consumers with financial benefits. In the Korean banking industry, loan interest rates have a powerful effect on consumers’ future actions when they feel that deposit interest rates are weak (Ha and Choi, 2010). In accordance with these observations, we expect that changes in consumers’ awareness of both types (loans and deposits) of interest rates should affect the relationship between customer orientation and loyalty. Thus, we derive the following hypotheses:

\[ H1. \] The relationship between customer orientation and loyalty is moderated by consumers’ awareness of loan interest rates.

\[ H2. \] The relationship between customer orientation and loyalty is moderated by consumers’ awareness of deposit interest rates.

**Three-way moderating effects**
We have considered the moderating effects of consumer awareness of interest rates (loans and deposits) separately; however, we believe for a potential three-way interaction between the two variables. More specifically, consumers are more sensitive to the loan interest rate (Lown and Peristiani, 1996) because of its more significant impact on their financial situation. For instance, most current mortgages carry a fixed rate in the USA, whereas most loans are variable in South Korea.

The cumulative prospect theory (Tversky and Kahneman, 1992) states that the people are more motivated by uncertainty and risk than gains and thus often engage in loss aversion behaviors. However, seemingly, these gain-loss asymmetries should only be relevant when rates change because the current rate becomes the status standard reference point for all decisions. This study focuses on the period when rates have changed (e.g. changing the Bank of Korea’s base rate) to avoid this issue. Thus, this theory supports the moderating role of interest rates between the two proposed constructs.

Notably, if consumers are evaluating losses and gains separately, they may not always evaluate and possibly combine these outcomes similarly. For example, some losses and gains from the same account may be combined (e.g. for a single debt account), whereas others may be kept segregated (e.g. a debt account may be perceived as separate from a savings account). It is desirable for consumers to use the same account to reduce possible
unexpected outcomes because most debt consumers of Korean banks will generally conduct their banking behaviors under the same account. Another possible issue regarding differential reactions to rate changes for loans and savings is that most long-term debt is established at a fixed rate, with only short-term debt (e.g. credit card debt) and savings being affected by rate changes. This situation suggests that some debt holders might actually be less sensitive to rate changes, which is reasonable. However, Korean banks do not provide fixed interest rates for long-term debt or mortgage consumers (instead, they may provide a fixed rate for the first three years and then an adjustable rate for the remaining 22 years). More importantly, most Korean banking consumers prefer to take out loans with combinations of interest rates (adjustable rate plus fixed-rate mortgage) (AJU Economic News, 2014). This combination means that customers have a fixed rate for a specific term, after which it converts to a variable rate (e.g. three years fixed at 3 percent, followed by prime plus 0.25 percent–0.5 percent).

Generally, most banking customers obtain both services (deposits and loans) from their main banks. Consistent with the consumer situation and cumulative prospect theory, banking customers first perceive changes in loan interest rates, then evaluate their potential losses and finally consider their gains. As shown in Figure 1, we argue that these processes indirectly moderate the effect of the consumer awareness of deposit interest rates on the relationship between customer orientation and loyalty. That is, customers are more likely to see the negative effects of the salience of deposit interest rates (i.e. lower deposit interest) before considering the moderating effect of the salience of loan interest rates (i.e. lower loan payments). Therefore, a three-way moderating effect should be negative rather than $H_2$. This result is more likely to occur when customers want a lower level of loan interest rate awareness. Consistent with this observation, the third hypothesis is as follows:

$H_3$. The moderating effect of consumers’ awareness of deposit interest rates on the relationship between customer orientation and loyalty will decrease as loan interest rates also become involved.

Effects of changes in levels of awareness of loan and deposit interest rates
As previously mentioned, consumers’ awareness of both loan and deposit interest rates influences customer loyalty in retail banking (Lewis and Soureli, 2006). The ability of this awareness to control loyalty enables customers to evaluate the trade-off between perceived benefits and sacrifices. However, the salience of interest rates affecting loyalty may differ in two economic situations: consumers’ awareness of an interest rate cut and their awareness of an interest rate hike. In this study, we focus on individual differences in rate sensitivity. Particularly, banking consumers are situationally driven, which implies that their reactions will depend on whether they have more debt or more savings in their financial accounts.

Therefore, banks need to identify which customers they should focus on and which they can ignore. For example, Kim and Lee have been using their specific banks’ services for five years; Kim has $5,000 in his savings account and a $40,000 loan, whereas Lee has $40,000 in his savings account and a $5,000 loan. If their banks raise the base interest rate by 0.25 percent, who will be more sensitive to this increase? Perhaps Kim will be more sensitive and thus more likely to take further action because loan interest rates will increase sharply compared with deposit interest rates. A simple evaluation makes this sound reasonable, but the empirical conclusion is less apparent.

When customers are likely to accept the positive performance from their banking services, the relationship between loyalty and profitability is much weaker (Reinartz and Kumar, 2002). Berry (1995) demonstrated that the customers most interested in pricing incentives (or cost savings) are particularly vulnerable to competitor promotions (in this study, a lower/higher level of awareness of interest rates) because relationship marketing
relies primarily on monetary benefits to secure customer loyalty. In accordance with this observation, we argue that customer loyalty levels should depend on changes in consumers' awareness of interest rates.

According to Beach’s (1990) image theory, people often adopt a two-state decision strategy in which they first eliminate many alternatives using simple heuristics then make a final choice from a shortlist. In financial psychology literature, Ranyard et al. (2006) investigated the role of mental accounting in consumer credit decision processes. Consistent with previous studies, we examine the second stage, specifically how the level of customer loyalty is reevaluated and a final choice is made on whether changes in interest rates are acceptable.

Our argument applies across financial domains; however, this paper tests the argument in the banking domain because people with considerable banking debt may be keener to avoid high loan interest rates than those who have large deposits. For our argument, the traditional model of expected utility maximization indicates that individuals with a choice of contract provisions for a loan of a given size tend to select the contract with the lowest present payment value (Wonder et al., 2008). Similarly, if the Bank of Korea increases its base rate, customers should be more sensitive in accepting significant changes in loan interest rates than relatively small changes in deposit interest rates, thereby resulting in lower levels of customer loyalty. However, changes in loan interest rates are more likely to increase customer loyalty than changes in deposit interest rates if the bank decreases its base rate, because banking customers are particularly interested in reducing the amount they have to pay (or increasing the amount they will receive) the following month. Thus, the following final two hypotheses are proposed:

**H4.** After the Bank of Korea increases its base interest rate, changes in consumers’ awareness of loan interest rates (rather than changes in the level of awareness of deposit interest rates) will result in relatively low levels of customer loyalty.

**H5.** After the Bank of Korea decreases its base interest rate, changes in consumers’ awareness of loan interest rates (rather than changes in the level of awareness of deposit interest rates) will result in relatively high levels of customer loyalty.

**Methodology**

This section reports the tests of **H1–H3** using survey data. A few participants who primarily focused on banking investments without any personal banking loans or debts were excluded because an inherent conflict between the current sample and these few banking investors may exist. As the current open market interest rate is substantially low (2.10–2.35 percent, March 2015), these people are likely to buy a new apartment using group loans. Group loans are a remarkably unique system in Korea because they can borrow money that is free of interest when applying for a new apartment. Their perception of interest rate changes may differ from that of people who have general personal banking loans or debts. In particular, people who have active banking investments are likely to have mortgage loans without interest, but they should be excluded.

**Sample data**

The following information may provide a better understanding of Korean banking consumers’ characteristics. These consumers are likely to judge the interest rates that banks offer instead of the other additional benefits (Kim, 2015). They sometimes check their main banks’ and other competing banks’ interest rate changes via online searches, particularly when the Bank of Korea changes its base rate.

The sample data were collected from participants who had banking transactions based on their real income in Seoul. Participants mainly focused on personal loans and debts,
most people had banked with a specific bank (one of the main Korean banks) for longer than 3 years (94.1 percent).

Participants were cross-checked against the provided customer lists, and the sample was randomly generated from a client population that the bank classified as “the upper middle class.” This class was sampled because changes in loan and deposit interest rates significantly affected their cost of living. The Bank of Korea lowered its base rate on March 13, 2015, and commercial banks adjusted their interest rates after the announcement. Thus, our survey was conducted in late April 2015. A self-administered survey was distributed to 425 randomly selected current banking customers in the customer lounge or waiting room of each of the selected bank branches. The data were collected over a three-week period in the banking context, yielding 327 usable surveys, which represent a 76.9 percent response rate. All respondents received an incentive from the research team to increase the response rates. The respondent demographic characteristics showed that most respondents were male (n = 217, 66.4 percent) and older than 35 years (n = 282, 86.2 percent).

Measures

Two main constructs in this study, customer orientation and customer loyalty, were adapted from published scales. The wording of the scales was adapted to suit the banking service sector. All items, including customers’ awareness of loan and deposit interest rates, were measured on the seven-point Likert-type scale, with anchors ranging from “strongly disagree” (1) to “strongly agree” (7). More specifically, customer orientation was measured with the four items adapted from a study of Saxe and Weitz (1982). Respondents were asked to assess the statements “Employees go beyond the normal call of duty to please customers (X1),” “Employees understand what kind of banking services a customer values most (X2),” “Employees are given adequate resources to meet customer needs (X3),” and “Employees understand customers’ real problems (X4).”

Customer loyalty was measured by two items adapted from Brady and Cronin’s (2001) research. Respondents were asked to assess “The probability that they would use the banking service again (Y1)” and “The likelihood that they would say good things to others (Y2).” Meanwhile, researchers may argue that the use of multiple-item measures of loyalty is desirable. We originally measured customer loyalty using three-item measures; however, we had to remove a poor-quality item from a limited item pool, resulting in scales with two items. In this case, previous researchers suggest that the use of two-item measures is possible (Eisinga et al., 2013). They recommended that if a reliability coefficient alpha is acceptable, two-item measures of loyalty are equally valid as the multiple-item measures. Furthermore, behavioral loyalty using two-item measures has often been found (e.g. Evanschitzky et al., 2006; Iglesias et al., 2011), and mixed measures can be used such as a single item or two items to measure loyalty (e.g. Gruen et al., 2006). Thus, our approach is acceptable.

Using the seven-point scale, we measured the two moderators, customer loan awareness and deposit interest rates, using the following single-item measures: level of awareness of (XXX bank) loan interest rates (“Not acceptable at all–Very acceptable”) and level of awareness of (XXX bank) deposit interest rates (“Not acceptable at all–Very acceptable”). For the salience of the rating measures, respondents’ judgments were relative to the same bank’s past rates. Furthermore, we also provided other banks’ interest rates (deposit and loan rates from the past vs current lists provided by banks) to enable respondents to make more informed judgments using relevant information.

Control variables

We controlled for gender, as this customer characteristic has been shown to moderate loyalty formation. Several studies (Balabanis et al., 2006; Mittal and Kamakura, 2001) have indicated that gender influences various aspects of consumer behavior. However, a small
gender imbalance exists in the application of consumer research (men vs women). Thus, the study includes gender as a control variable to address this application imbalance.

We also controlled for the number of banks a consumer used for transactions. Although most people only bank with their main bank, changes in consumers’ awareness of interest rates can influence their attitudes, thereby affecting loyalty. Unlike gender, the number of banks with which the respondents “bank” may be intuitively related to “loyalty”; however, most banks in Korea handle a variety of banking products, hence people are likely to have one or two accounts with other banks and increase transactions with competing banks (Ha, 2012). For example, the main bank of consumer A is Bank 1 (a checking account into which monthly payment is deposited is generally considered one’s “main bank” in Korea), but he or she performs stock trading with Bank 2. This finding indicates that the number of banks used is not related to loyalty, which was measured by asking customers how many banks (other than their primary bank) they had banked with: 0, 1, 2, 3, 4, or more.

Measure validation
A two-step approach, as suggested by Anderson and Gerbing (1988), was used to assess the modeled constructs’ convergent validity. In the first step, exploratory factor analysis was conducted to assess the underlying factor structure of the scale items (see Table I). We found no general factors that would have emerged because of common method variance (Podsakoff and Organ, 1986).

In the second step, we conducted confirmatory factor analysis using AMOS 21. As shown in Table II, the measurement model suggested a good fit to the data, \( \chi^2(8) = 15.552, \) \( \chi^2(8) = 15.552, \)
The results indicated that all factor loadings were greater than the recommended 0.5 cutoff (Thompson, 2004) and were statistically significant, providing strong evidence for convergent validity (Bagozzi and Yi, 1988). Particularly, convergent validity was supported by the AVE of each measure that exceeded the recommended level of 0.50. Discriminant validity was tested by comparing the AVE of each construct with the shared variance between the construct and another construct (Fornell and Larcker, 1981). Considering the data shown in Tables I and II, all AVEs exceeded the squared correlation between each pair of constructs, indicating a satisfactory level of discriminant validity.

**Results**

Table III summarizes the results of the hierarchical moderated regression analysis of the control, main and interaction effects. In particular, only the control variables were entered into Model 1, and the main effect variables were entered along with the control variables into Model 2. Model 3 contains all the relationships specified in Model 2 plus the two-way interactions. Finally, Model 4 presents the results of our proposed hypotheses. That is, we ran the models iteratively, expanding the range of variables included in each period, starting with only controls and finishing by entering interactions. Interestingly, the two control variables differed; gender was insignificant, whereas the number of transaction banks was negatively significant (\( b = -0.14, p < 0.05; \) the standardized \( \beta \)).

As demonstrated in Table III, customer orientation had a significant positive effect on customer loyalty (\( b = 0.62, p < 0.01 \)). \( H1 \) and \( H2 \) state that consumers’ awareness of deposit and loan interest rates plays a role in moderating the relationship between customer orientation and loyalty. Although \( H1 \) was not supported (\( b = -0.06, p > 0.05 \)), \( H2 \) was positively significant (\( b = 0.17, p < 0.05 \)). Interestingly, the relationship between customer orientation and loyalty was weakened by the moderating effect of the customer awareness of loan interest rates (\( b = 0.62 \) vs \( b = 0.17 \)). These empirical results show that

<table>
<thead>
<tr>
<th>Dependent variable: customer loyalty</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.15*</td>
<td>0.02</td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td>Number of transaction banks</td>
<td>-0.13*</td>
<td>-0.11*</td>
<td>-0.15*</td>
<td>-0.14*</td>
</tr>
<tr>
<td><strong>Main effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer orientation (CO)</td>
<td></td>
<td>0.69**</td>
<td>0.64**</td>
<td>0.62**</td>
</tr>
<tr>
<td>Level of awareness of deposit interest rates (DIR)</td>
<td>0.14*</td>
<td>0.13</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>Level of awareness of loan interest rates (LIR)</td>
<td>0.04</td>
<td>0.27**</td>
<td>0.24**</td>
<td></td>
</tr>
<tr>
<td><strong>Two-way interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO×DIR (H1)</td>
<td></td>
<td>0.11</td>
<td>-0.06</td>
<td></td>
</tr>
<tr>
<td>CO×LIR (H2)</td>
<td></td>
<td>0.18*</td>
<td>0.17*</td>
<td></td>
</tr>
<tr>
<td>DIR×LIR</td>
<td></td>
<td>0.02</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td><strong>Three-way interaction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO×DIR×LIR (H3)</td>
<td></td>
<td></td>
<td></td>
<td>0.07</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.015</td>
<td>0.454</td>
<td>0.470</td>
<td>0.479</td>
</tr>
<tr>
<td>Change in ( R^2 )</td>
<td></td>
<td>0.440**</td>
<td>0.016*</td>
<td>0.009*</td>
</tr>
<tr>
<td>( F )</td>
<td>2.447</td>
<td>53.481</td>
<td>35.311</td>
<td>32.442</td>
</tr>
<tr>
<td>Change in ( F )</td>
<td>86.217**</td>
<td>3.197*</td>
<td>5.497*</td>
<td></td>
</tr>
</tbody>
</table>

Table III. Regression results

**Notes:** All coefficients are \( \beta \)'s. *\( p < 0.05 \); **\( p < 0.01 \) (two-tailed \( t \)-test)
loan interest rates affect the strength of the relationship between customer orientation and customer loyalty.

Customer awareness of loan interest rates influenced the three-way interaction asserted in H3. However, this awareness did not play a role in moderating the effect of customer orientation and deposit interest rates on customer loyalty. Moreover, customers’ awareness of loan interest rates weakened the effect of the two variables on customer loyalty ($b = 0.07, p > 0.05$).

Further analysis with additional experiments

We additionally tested H4 and H5, which were directly related to the two-way interactions. Concurrently, two experiments (Experiment 1a: after the Bank of Korea increased the base interest by up to 0.25 percent vs Experiment 1b: after the Bank of Korea decreased the base interest by up to 0.25 percent) were conducted using a two-by-two (customer orientation: high vs low × customer type: deposit-focused customer vs loan-focused customer) between subject design.

The first experiment was conducted in early July 2015. In Experiment 1a, 106 staff members (average age of 36 years, 59 percent female) at a university located in Seoul was recruited to participate in the study and share their banking interest rates. They were chosen as participants in the study because we wanted to invite real bank customers who received regular wages. The perceptions and experiences of university staff members may differ from those of university students. One of the researchers explained the current base interest rate of the Bank of Korea to the participants: “Today, the base interest rate of the Bank of Korea was raised by 0.25%. Banks will raise their interest rates (both deposit and loan interest rates) shortly.” Importantly, bank interest rates on deposits and loans in the current condition were less than or equal to the interest rates of all accounts; thus, participants had to consider the following changes that banks offered: the tendency to raise their deposit interest rates by a low level and, typically, raise their loan interest rates by high levels. Participants were asked to evaluate their awareness and behavior on the basis of the current base interest rate of the Bank of Korea.

Four weeks after Experiment 1a, 85 staff members from the same university (average age of 33 years, 61 percent female) were voluntarily recruited to participate in the study for Experiment 1b. A researcher explained the current base interest rate of the Bank of Korea to the participants: “Today, the base interest rate of the Bank of Korea was decreased by 0.25%. Banks will decrease their interest rates (both deposit and loan interest rates) shortly.” Importantly, bank interest rates on deposits and loans in the current condition were higher than or equal to the interest rates of all accounts; thus, participants were asked to consider the following changes offered by the banks: banks decrease their deposit interest and loan interest rates to low levels. Participants were asked to evaluate their awareness and behavior on the basis of the current base interest rate of the Bank of Korea.

We measured the customer orientation using four items (see the Measures section). We calculated that these four items and then identified participants’ perceptions of banks as having a “high customer orientation” or a “low customer orientation” on the basis of the mean of the four items. Participants were asked to respond to the following prompt (on the seven-point scale where 1 = “not at all” and 7 = “definitely”): “I am mainly focused on deposit interest rates, regardless of when the base interest rate of the Bank of Korea raises or declines” to identify the customer type (deposit-focused customer vs loan-focused customer). We calculated the mean for customer type and then identified two types of banking customer groups (deposit-focused customers vs loan-focused customers). Customer loyalty was measured using two items (see the Measures section). Similarly, we calculated the mean of customer loyalty and then used the mean value for a two-way ANOVA.
As shown in Table IV and Figures 2 and 3, the changes in the Bank of Korea’s base interest rate were significantly different from the level of customer orientation and customer type. More specifically, when the Bank of Korea’s base interest rate rose, both customer orientation and customer type had significant effects on customer loyalty. In particular, the deposit-focused group showed a significant increase toward a high customer orientation. The gap was critical between loan-focused \((M = 4.065)\) and deposit-focused \((M = 5.203)\) groups, resulting in a significant interaction effect. Thus, \(H4\) was supported. Meanwhile, only the customer type was significant when the Bank of Korea’s base interest rate declined. In particular, the loan-focused group \((M = 4.866)\) showed a high customer orientation compared with the deposit-focused group \((M = 3.690)\). Although \(H5\) was supported, an interaction effect did not occur.

<table>
<thead>
<tr>
<th>III type</th>
<th>Sum of squares</th>
<th>Degrees of freedom</th>
<th>Mean square</th>
<th>(F)</th>
<th>(R^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Bank of Korea raises the base interest rate (+0.25%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer orientation</td>
<td>13.874</td>
<td>1</td>
<td>13.874</td>
<td>11.293**</td>
<td>0.215</td>
</tr>
<tr>
<td>Customer type</td>
<td>2.373</td>
<td>1</td>
<td>2.373</td>
<td>1.932**</td>
<td></td>
</tr>
<tr>
<td>Customer orientation</td>
<td>4.545</td>
<td>1</td>
<td>4.545</td>
<td>3.700*</td>
<td></td>
</tr>
<tr>
<td>Customer type error</td>
<td>125.309</td>
<td>102</td>
<td>1.229</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The Bank of Korea decreases the base interest rate (−0.25%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer orientation</td>
<td>3.533</td>
<td>1</td>
<td>3.533</td>
<td>2.432</td>
<td>0.236</td>
</tr>
<tr>
<td>Customer type</td>
<td>11.631</td>
<td>1</td>
<td>11.631</td>
<td>8.005**</td>
<td></td>
</tr>
<tr>
<td>Customer orientation</td>
<td>0.443</td>
<td>1</td>
<td>0.443</td>
<td>0.305</td>
<td></td>
</tr>
<tr>
<td>Customer type error</td>
<td>117.683</td>
<td>81</td>
<td>1.453</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table IV.** Results of two-way ANOVA

Notes: *\(p < 0.05\); **\(p < 0.01\)

**Figure 2.** The two-way moderating effect between customer orientation and customer type on customer loyalty after the Bank of Korea increases the base interest rate

**Note:** The y-axis is customer loyalty
Discussion
Considering the challenges that marketers face in trying to increase customer loyalty when the economic situation is unstable, it is surprising that the relationship between customer orientation and loyalty has not been investigated systematically when changes in customers’ awareness of interest rates (deposits vs loans) increase or decrease. Although the 2011 *Journal of Marketing Research* special issue (*JMR*, 2011) reported the consumer financial decision making, consumers’ decisions can also be influenced by situational factors (Lynch, 2011). This study addresses the theoretical and managerial relevance of this issue by investigating changes in consumers’ awareness of both deposit and loan interest rates with regard to the relationship between customer orientation and loyalty.

Our empirical results from the banking market establish that interest rates can have a significant effect on the strength of the relationship between customer orientation and customer loyalty. Beyond statistical significance, our findings particularly show that changes in loan interest rates dramatically weakened the relationship between the two constructs. The nature of the effect of interest rates on customer loyalty was consistent with the theoretical arguments presented in the cumulative prospect and consumer situation theory literature. Specifically, we found that when the Bank of Korea’s base interest rate rose, the customer orientation (low customer orientation vs high customer orientation) and customer type (deposit-focused customer vs loan-focused customer) had significant effects on customer loyalty with a strong interaction effect.

Theoretical implications
Prior research had mainly focused on personal loans or debt consolidation loans, whereas this study advances a better understanding of customer loyalty using changes in consumers’ awareness of deposit and loan interest rates. Theoretical work on consumer situation theory identifies the behavior of banking customers concerning consuming
negative economic products and services (Sriramesh et al., 2007). The evidence of theoretical implications indicates that changes in consumer awareness of loan interest rates directly influence the decrease in loyalty because changes in the level of awareness regarding loan interest rates are closely related to the decline of household consumption expenditure.

Our view is supported by Table III, which shows that changes in consumer awareness of loan interest rates influenced the relationship between customer orientation and loyalty. Although customer loyalty is significantly, directly and positively affected by these changes, it weakened at low levels of customer orientation when consumer awareness of loan interest rates increased. As banking customers may feel more comfortable asking questions and engaging with a bank (Eisingerich and Bell, 2008), modern customer orientation is generally high. However, customers will likely evaluate the customer orientation offered by a bank at a personal level; thus, poor customer orientation results in a low level of customer loyalty, particularly when their awareness of loan interest rates increases.

However, our research speaks to the changes in consumer awareness of deposit interest rates, as customer loyalty had no impact, regardless of any changes in consumer awareness of deposit interest rates. The results suggest that improving customer loyalty is difficult for banks. However, we note that a combined approach with changes in consumer awareness of loan interest rates was successful, which implies that emphasizing the salience of both interest rates when testing the relationship between customer orientation and loyalty might be reasonable.

Our findings highlight the differential effect of changes in consumer awareness of loan interest rates on the relationship between customer orientation and loyalty. We found that a limited difference existed in customer loyalty at the high level of customer orientation as changes in consumers’ awareness of loan interest rates decreased. Although researchers have noted that customer orientation is important for improving customer loyalty, this observation shows that the better knowledge of changes in consumer awareness of the interest rates offered by banks can be beneficial for predicting customer behavior. The current Korean economic situation is dynamic and provides strong signals that the base rate will decrease; therefore, the “lay theories of personal finance” proposed by Molden and Dweck (2006) will lead banking customers to favor lower interest rates for longer-duration loans. If the economic situation is uncertain and the base rate soars, our evidence suggests that changes in consumer awareness of loan interest rates will play a critical role in decreasing customer loyalty.

Managerial implications
Managers will benefit from understanding the changes in consumer awareness of deposit and loan interest rates and their impact on customer loyalty, and this study offers useful insights and several implications regarding this topic. First, our findings show that the number of banks consumers used for transactions was negatively significant, indicating that people who bank with several banks in addition to their main bank are likely to have a low level of loyalty when the salience of interest rates changes. Banks need to know the importance of periodic consultation services with the valuable people who transact with one or more banks because changes in consumer awareness of interest rates influence customer loyalty (or switching behavior), particularly when their awareness of loan interest rates increases.

Second, with the consistent finding that changes in the salience of loan interest rates influenced the relationship between customer orientation and loyalty, banks should quickly explain how much money is necessary when consumer awareness of loan interest rates changes. As most banks neglect this method, a potential strategy is for bank to provide their customers the information (e.g. periodic customized information for each individual customer or a real-time alarm service when interest rates change) about the changes in loan interest
rates, especially for financial products for which the monthly debt payment is adjusted (before and after). As a result, customers will likely feel more comfortable because the resistance to changes in loan interest rates is reduced, indicating that customer loyalty is more positive.

Finally, our results reveal that customer loyalty weakened at the low level of customer orientation when the salience of loan interest rates increased. Although little research is available explaining the relationships between changes in consumer awareness of interest rates, customer orientation and loyalty in the marketing literature, managers should approach customer care on a personal level, because individual customers may evaluate the same level of customer orientation a bank offers differently, particularly in the context of interest rate increases. When consumer awareness of loan interest rates decreases, our findings offer further evidence of the gap reduction between consumer awareness of deposit and loan interest rates and customer loyalty at the low level of customer orientation.

Limitations and further research
Our research has several limitations that suggest directions for further research. First, the current study is based on a relatively small sample of banks, which may limit the findings' generalizability. We also focused on the customer loyalty of upper-middle-class customers when the salience of deposit and loan interest rates changed. Thus, comparing different customer profiles with changing consumer awareness of interest rates would be meaningful.

Second, we chose banking deposit and loan services to investigate the relationship between customer orientation and loyalty for the purpose of this study. However, several financial services exist (e.g. insurance, credit cards and other individual-level small financial firms) that deal with deposits and loan interest and may also influence customer loyalty. The results may differ for attribute levels with varying degrees of customer orientation. Further research might compare attribute levels in different financial services that consider either long-term customer loyalty or profitability.

Third, this study may have interesting cross-cultural implications. It describes the Korean context where most loans are at variable rates, whereas those in the USA (e.g. mortgages) have fixed rates. The implications of similar studies carried out in different cross-cultural banking contexts yield interesting findings.

Fourth, one may also argue that the interest rate is one of the critical dimensions aside from online services, location convenience and customer services. Although these factors are important for changes in customer behaviors, the current study only focused on the importance of interest rates to address the relationship between customer orientation and loyalty when interest rates change. For example, a recent study demonstrated that for 68.7 percent of customers, at least in the Korean financial service context, interest rates are a fundamental element in choosing financial organizations and establishing loyalty because of the minor importance of other dimensions (under 10 percent) (Kim, 2015). However, further study should consider these relevant factors when changes in interest rates significantly affect consumer behaviors and conduct a natural experiment to explore the causality between these two constructs.

Fifth, this study used university staff members as subjects for the additional experiments conducted. They have stable incomes, but they are not the only category of people who have stable incomes. The choice is based on accessibility, but it also implies bias. Further studies could carefully choose experimental subjects to generalize the results of the customer-based financial study.

Finally, the response of individual consumers to interest rate changes vs those of business customers is another interesting direction the researchers may consider in their future research plans. Additionally, we used two-item measures of loyalty, but using more items may be better, because theoretical tests and empirical findings may be different if the two-item measures were used instead of these multiple items for customer loyalty.
References


Beach, L.R. (1990), Image Theory: Decision Making in Personal and Organizational Contexts, Wiley, Chichester.


About the authors

Huifeng Pan is Assistant Professor at Shanghai University of Political Science and Law. His recent work has been published at *Management Decision, Internet Research* and other peer-reviewed journals.

Hong-Youl Ha is Professor of International Trade at the Dongguk University in Seoul, Korea. He received the PhD Degree from Swinburne University of Technology in Australia, and his articles have been published in journals such as the *Journal of Computer-mediated Communication, European Journal of Marketing, Service Industries Journal, International Marketing Review, Journal of Services Marketing, Journal of Consumer Marketing, International Marketing Review, Journal of Consumer Behaviour*, and *Asia Pacific Business Review*, among others. Hong-Youl Ha is the corresponding author and can be contacted at: hyha@dongguk.edu

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: permissions@emeraldinsight.com