CRM Implementation Strategy in Taiwan’s Banking Industry

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ABSTRACT

The research done with the present study has uncovered a number of factors which can be used to guide companies for a successful CRM implementation. These factors include discovering customers’ needs, offering channels that the customers prefer, keeping employee’s longevity, maintaining employee’s morale, conducting a decision support system, ensuring primacy of customer services over strategies, customizing CRM functions/modules, empowering employees with decision making, choosing reputed CRM vendors, and drawing on the expertise of CRM vendors. If the major goal is to improve the adoption of CRM system, the management in Taiwan’s banking industry should then emphasize two of these factors: conducting a decision support system and discovering customer’s needs.

Keyword: customer relationship management, Taiwan, CRM, enterprise information systems, information technology and banking

INTRODUCTION

The focal point adopted in the present study is Customer Relationship Management (CRM) and its adoption in Taiwan’s banking industry. The concept of CRM and its benefits have been widely accepted. Kincaid (2003, p. 47), for instance, states “CRM delivers value because it focuses on lengthening the duration of the relationship (loyalty).” Motley (2005) found that satisfiers keep the customers in the bank while dissatisfiers eventually chase them out. Earley (2003) highlights the necessity of holistic CRM strategies for every company because nowadays even the most solid brand names could no longer secure lasting customer loyalty. In view of these observations, the authors of the present study believe that customer relationship management is critical for any service firms, including the banks.

LITERATURE REVIEW

All organizations, including those in the banking industry, should have a clear picture of their goals and objectives for adopting a CRM system, and they will need to create a set of selection criteria based on these goals and objectives in choosing or developing the best CRM package for their business. In addition, a firm should have a clear picture of their CRM vision and strategies before discussing the technology. H. P. Lu, Hsu and Hsu (2002) found that, when implementing a CRM system, Taiwan’s banking industry would normally focus on the customer-service system rather than on the overall strategies. These writers advise, “The bank that has established CRM systems should not treat CRM as a customer-service system, but to use it with a broader view” (p. 540). Teng (2003) also points out that the CRM adoption in Taiwan’s banking industry is not as deep as in its U.S. counterpart. In addition, the application of CRM systems in Taiwan has recently been limited to customer-service centers or call centers. Li (2003) found that, in order to enhance the customer services, the CRM systems should be adjusted when a company adopts them. In other words, companies should “customize” their CRM systems according to the common demands of groups of customers. If the customization of the CRM system cannot satisfy the customers, companies could further consider “personalizing” their CRM systems. Liao (2003) suggests that companies, when adopting CRM systems, should emphasize customer differentiation, customer loyalty, customer lifetime values, one-to-one marketing, and customization. Yo (2004) thinks that the banks in Taiwan, which are business-oriented, should encourage their employees to be more innovative and more aggressive in collecting
customer information. On the other hand, those banks which are customer-oriented, Yo argues, should emphasize complete systems, discipline, service processes, and collaboration among co-workers. It is generally believed that CRM vendors should emphasize a bank’s CRM adoption factors such as costs, sales, competitors, expertise of CRM vendors, managers’ support, and operational efficiency (H. P. Lu, Hsu and Hsu, 2002). For banks that have not yet established a CRM system, CRM vendors should not only convince them to install CRM systems, but should also supply omnifarious solutions and complete consulting services. For those banks that have already established a CRM system, in addition to enhancing after-sales services, the CRM vendors should strive to integrate the CRM systems into the legacy information systems.

Chang and Lin (2002) found that the degree of requirement and cognition of information quality among financial organizations in Taiwan was very high because those organizations relied on this information to understand the demands of their customers. Moreover, through the adoption of CRM systems, financial organizations can understand consumers’ behavior thoroughly before providing products and services to them.

Many researchers have identified delivery channels as the influencers of consumer behaviors. Balasubramanian, Rghunathan, and Mahajan, (2005, p. 13) comment, “Consumers display complex shopping behaviors in the emerging multi-channel environment, which includes traditional retail stores and the Internet.” Dholakia, Zhao and Dholakia (2005) found that consumers expect their shopping experiences to be consistent across all channels and that it is important for businesses to implement multi-channel strategies. Schoenbachler and Gordon (2002, p. 52) also argues, “For the consumer, multiple channels extend choice in terms of information.”

Many researchers have isolated customer churn as a significant issue in the banking industry. Fuller (2005, p. 47), for example, found that “in some cases, banks lose 40 percent of new customers before these customers’ first-year anniversary.” Penny (1993, p. 70) presents a unique view on customer retention: employee longevity means customer longevity. Clearly, this assumption is grounded on the premise that the employees are necessarily competent and personable.

Since a bank offers countless daily services — such as offering credit cards, loans, mortgages — it is very risky for it to offer such services to customers they know nothing about. It is generally acknowledged that banks need to ensure the reliability of their customers (Hormazi and Giles, 2004). The concept here is simple: the banking industry has a need to reduce the risks from issuing credit cards or loans to customers who are likely to default. An example, given by Cocheo (2005), is of a bank that found a borrower appealing until receiving a court notice saying the customer had filed a bankruptcy. As a solution to problems such as this, the artificial neural network (ANN) has been widely used. According to Fadlalla and Lin (2001), an ANN is a technology using a pattern-recognition approach that has been employed successfully in many business applications, including those in the U.S. banking industry. According to Turban, Aronson, and Liang (2004), an ANN is able to learn patterns in the data presented during training and will automatically apply what it has learned to new cases. One important application of ANN is in bank loan approvals because an ANN can learn to identify potential loan defaulters from the ascertained patterns. Turban et al. further observe that one of the most successful applications of an ANN is in detecting unusual credit spending patterns, thereby exposing fraudulent charges. Therefore, conducting decision support systems, such as ANN technology, to analyze the customer data should be a critical step toward CRM adoption in Taiwan’s banking industry.

To sum up, past research suggests ten factors that might affect the success of CRM adoption in Taiwan’s banking industry: (1) discovering customer’s needs, (2) offering channels that customer prefer, (3) keeping employee’s longevity, (4) maintaining employee’s morale, (5) conducting decision-support system, (6) establishing primacy of customer services over strategies, (7) customizing CRM functions/modules, (8) empowering employees with decision making, (9) choosing reputed CRM vendors, (10) drawing on the expertise of CRM vendors. Besides the measurement of the overall CRM success, could also be used in gauging the CRM success.

**RESEARCH DESIGN**

First, based on the findings from the previous studies, an exploratory study consisting of focus-group interviews was conducted to uncover the nature of the problems confronting the banks in adopting CRM. Second, based on the
findings from this preliminary investigation, a quantitative analysis using survey and statistical methods was conducted to identify possible answers to the research question.

**Survey design**

The survey questionnaire was uploaded to the web site. All of the items were measured on a 7-point Likert-type scale. Respondents indicated their level of perception with each of the questions on a rating scale ranging from 7 (strongly agree), through 4 (neutral), to 1 (strongly disagree). Roughly, twenty people were asked to fill out the questionnaire on the web for the pilot study. After the revision of the questionnaire, an invitation letter, along with the hyperlink to the web site of the revised questionnaire, was e-mailed to the sample respondents, asking them to fill out the questionnaire on the web.

**Research population and samples**

The population of this survey is defined as “the local banking industry in Taiwan, including domestic banks and the local branches of foreign banks.” The total number was seventy-two, including 41 domestic banks and 31 local branches of foreign banks. The information about these banks came from the official website of the Financial Supervisory Commission, Executive Yuan, Taiwan, Republic of China. The samples consisted of the CRM users in the IT or Customer-Service departments in those banks.

**The hypothesis and variables**

The 10 predictor variables (i.e., discovering customers’ needs, offering channels that customers prefer, keeping employee’s longevity, maintaining employee’s morale, conducting the decision-support system, establishing primacy of customer services over strategies, customizing CRM functions/modules, empowering employees with decision making, choosing reputed CRM vendors, drawing on the expertise of CRM vendors) are most critical factors in improving the CRM adoption in Taiwan’s banking industry.

**RESULTS AND DISCUSSION**

**Responses to the Survey**

Data were collected via email sent to the respondents identified. A hyperlink was included in the e-mail allowing the respondents to fill out the survey through the SurveyMonkey.com web-based survey. A total of 30 responses had been collected using this Web-based method. After examining the data set obtained during the initial collection phase, some modifications of the questionnaire design were made to reduce the fill-out time and, thus, to increase the response rate. This modification, however, did not change the essence of the questions asked. The modified questionnaires were sent by email to 10 senior bankers in Taiwan’s banking industry. These individuals were also identified in the “Population and Sample” section of this article. With the assistance of these senior bankers, questionnaires were distributed to other sample participants. 131 out of the 157 people had responded to the inquiry during this drop-off collection phase, with the response rate being around 83%.

To sum up, data were gathered from a total 161 respondents (i.e., 30 from the web-based phase and 131 from the drop-off phase). To ensure that there were no differences in the data sets between the web-based and drop-off data collection phases, a descriptive statistical analysis was conducted to compare the values of means and standard deviations for the data sets respectively. Since the results of this analysis indicated that the mean and standard-deviation values for the two phases were sufficiently close and similar, the data sets were merged for further statistical analyses.

**Pre-Analysis data screening**

An evaluation of missing data and outliers (i.e., extreme values) of the collected data set led to the elimination of 16 cases, reducing the number of responses to 145 for further statistical analyses. The test of data normality, linearity, and homoscedasticity were also conducted in order to satisfy the general assumptions in multivariate statistical testing. Mertler and Vannatta (2005) suggested that “when the assumptions of linearity, normality, and homoscedasticity are met, residuals will create an approximate rectangular distribution with a concentration of scores along the center” (p.55). The
scatterplots revealed that the residual plot created a rectangle shape with scores concentrated in the center, suggesting that the collected data set had satisfied the general assumptions of normality, linearity, and homoscedasticity in multivariate statistical testing.

**Statistical results and discussions**

Table 1, 2 and 3 represent three primary parts of a multiple regression output using the standard regression approach (as opposed to the step-wise approach): General Model: Model Summary, General Model: ANOVA, and General Model: Coefficients. A review of the tolerance statistics presented in the coefficients table (i.e., Table 3) indicates that all IVs were tolerated in the model (with the tolerance statistics exceeding 0.1). Mertler and Vannata (2005) explain, “…if the tolerance value for a given IV is less than 0.1, multicollinearity is a distinct problem” (p. 169). Thus, collinearity is not a serious problem for the current data. The model summary (see Table 1) and the ANOVA summary (see Table 2) indicate that the overall model of the ten IVs is significantly related to the success CRM [Adjusted R² = .621, F (10, 134) = 24.562, p<.005]. Therefore, the hypothesis, that the 10 predictor variables (i.e., discovering customers’ needs, offering channels that customers prefer, keeping employee’s longevity, maintaining employee’s morale, conducting the decision-support system, establishing primacy of customer services over strategies, customizing CRM functions/modules, empowering employees with decision making, choosing reputed CRM vendors, drawing on the expertise of CRM vendors) are most critical factors in improving the CRM adoption in Taiwan’s banking industry is supported.

While applying the standard regression approach (see Table 3), two variables (i.e., discovering customers’ needs and conducting the DSS) were significant in predicting the success of CRM adoption.

The general model of the hypothesis of present study:

\[ Y_{\text{(Success CRM)}} = 0.13X_1 \text{ (primacy of customer services)} + 0.095X_2 \text{ (customization of CRM functions/modules)} + 0.012X_3 \text{ (empowerment of decision making)} + 0.127X_4 \text{ (well-brand name CRM vendors)} - 0.012X_5 \text{ (expertise of CRM vendors)} + 0.384X_6 \text{ (discover customers’ need)} - 0.066X_7 \text{ (offer more channels that customer preferred)} - 0.09X_8 \text{ (keep employees' longevity)} + 0.049X_9 \text{ (keep employees’ morale)} + 0.374X_{10} \text{ (conduct the DSS)} \]

<table>
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<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Change Statistics</th>
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<td>R Square Change</td>
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<td>F Change</td>
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<td>df1</td>
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<td></td>
<td>df2</td>
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<td></td>
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<td>.004</td>
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<td>Total</td>
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<td>Moral</td>
<td>.049</td>
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<tr>
<td></td>
<td>DSS</td>
<td>.374</td>
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\[ 1 \text{ (Cons tant)} \] (primacy of customer services) + 0.095X2 (customization of CRM functions/modules) + 0.012X3 (empowerment of decision making) + 0.127X4 (well-brand name CRM vendors) = 0.012X5 (expertise of CRM vendors) + 0.384X6 (discover customers’ need) − 0.066X7 (offer more channels that customer preferred) − 0.09X8 (keep employees' longevity) + 0.049X9 (keep employees’ morale) + 0.374X10 (conduct the DSS).
CONCLUSION

Conducting the DSS (decision-support system)

According to Turban et al. (2001), CRM is “fundamentally an enterprise-level DSS” (p. 457). In the present study, CRM is defined as a philosophy of understanding and influencing the customers, gaining new customers, retaining existing customers and enhancing the profit provided by customers in the banking industry; and a CRM system provides the technology to carry out this philosophy. Corporations that have achieved high customer retention are those able to deliver the right products (or services) to the right customers, at the right price, at the right time, through the right channel, to satisfy their customers’ needs or desires (Swift, 2001). These are the main goals of CRM vis-à-vis the rise of “E-commerce,” which have affected both the need for quality (products and services) and the accuracy in customer analyses (Berkowitz, 2001; Kohli, Piontek, Ellington, VanOsdol, Shepard and Brazel, 2001).

Chou (2006) considers the ANN technology one of the most popular methods for evaluating credit-card loan decisions in Taiwan’s banking industry. Support vector machine (SVM), an ANN technology, has been singled out by many researchers. It is discovered that the predicting power of the support vector machine is better than the neural network because SVM could outplay the traditional statistical approaches in precision. Chou (2006) believes that the introduction of a support vector machine into the individual credit-card loan system may equip the bank with the ability to render a much more effective evaluation of customers’ credit conditions and at the same time lower the probability of bad debts. Furthermore, Hung (2005) states that the SVM technology, because of its ability to comply with the principle of risk minimization and better performance, has great utility in the loaning decisions of a bank.

Thus, conducting decision-support systems could help Taiwan’s banking industry analyze its customers more accurately. CRM gathers data on, and tracks, the customers. It ensures effective use of data to manage relationships with the customers.

The statistical results of the present study, which corroborate findings of previous studies, indicate that if the goal is to improve the adoption of CRM system, managers in Taiwan’s banking industry should emphasize more on conducting the decision-support systems (DSS).

Discovering customer needs

One of CRM’s goals is to increase the bank’s profitability by improving its communication with the right customers while delivering the right offers (products and prices), through the right channel, at the right time (Swift, 2001). Moreover, the high value of customers’ loyalty reflected in repeated patronage is the key to profitability and growth in the banking industry. Therefore, it is important for banks to know their customers. Fan (2004) suggests that Taiwan’s banking industry, when adopting the CRM system, should focus on customer data management and customer support services rather than treating the system merely as a tool for cost reduction. That is, Taiwan’s banking industry needs to thoroughly discover, analyze and understand their customers’ needs and behaviors in order to provide them with the highest possible value.

While no banks could afford to offer the highest level of service to all their customers, banks could certainly differentiate their customers into groups based upon their values and contribution levels (Ott, 2000). By doing so, banks could cater to customers at different levels with different financial products and via different channels. In tune with this observation, Christopher, Payne and Clark (1998) argue that the goal of CRM is to discover and retain customers who could provide values. These comments resonate perfectly with the results of the present study-- that if the goal is to improve the adoption of CRM system, managers in Taiwan’s banking industry should place more emphasis on discovering their customers’ needs.

LIMITATIONS

The success factors of CRM adoption as found in the present study should not be generalized too far for the simple reason that the needs and conditions may vary widely from local banks to other financial institutions such as Trust and Investment Companies, Bills Finance Companies and Credit Cooperatives. These differences deserve scholarly attention and are worth further exploration in future research.
REFERENCES


