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Empirical Study of Customer Satisfaction and Customer Loyalty: The role of Innovation Capability and Ethical Behavior

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### **ABSTRACT**

Banking sector need to find the right strategy in providing Customer Satisfaction and increase Customer Loyalty. Based on previous empirical research, this study emphasizes the importance of Innovation Capability and Ethical Behavior as the antecedents of Customer Satisfaction. Data were collected from 200 customers of Bank in Pamekasan regency and analyzed using Structural Equation Model (SEM). The major findings include first, Innovation Capability has significant effect on Customer Satisfaction. Second, Ethical Behavior has significant effect on Customer Satisfaction. Third, Customer Satisfaction has significant effect on Customer Loyalty.

**Keywords:** Innovation Capability, Ethical Behavior, Customer Satisfaction, Customer Loyalty.

**INTRODUCTION** 

In line with the development of the world marketing that makes level of competition among the companies in Indonesia becomes higher, therefore, that particular company tries to strengthen on the marketing strategy. In fact, besides the tight competition among the companies, focus of business changes from product centric to the customer centric. Getting new customers and loyalties—those two become the most important thing to keep the bank existence. Moreover, strategy is needed to get customers' loyalty, Innovation Capability and Ethical Behavior as a workable business strategy. It is very appropriate to apply by a company to satisfy its customers and create

loyalty <sup>1,2,3,4,5</sup>. Assume that creation of the client's or customer's satisfaction can make the relationship between the service provider and the customer is harmonious. After that, it can create the customer's loyalty and finally it can give more profits to the company.

<sup>6</sup>said that Innovation Capability as the ability to transform knowledge and ideas into new products, processes and system for the benefit of the firm and its stakeholder. <sup>7</sup> suggests that higher customer satisfaction arise when the customers perceive higher customer value and higher service innovation. According to Griffin Ethical behavior is an individual's personal beliefs about whether a behavior, action, or decision is right or wrong. The study conducted by <sup>8</sup>show that ethical perceptions about the organization amplify the impact of customer value on customer satisfaction and eventually loyalty.

The present study emphasizes the importance of antecedents that affect Customer Satisfaction and Customer Loyalty. First, this study examines the impact of Innovation Capability on Customer Satisfaction. Second, the impact of Ethical Behavior on Customer Satisfaction. Third, the impact of Customer Satisfaction on Customer Loyalty. Limited study conducted to Customer of Bank in Pamekasan Regency. The present study contributes to fulfill this research gap.

### LITERATURE REVIEW

Based on previous research, there are 11 construct that affect customer satisfaction, such as Customer Relationship Management (CRM), Innovation Capability, Corporate Image, Corporate Social Responsibility (CSR), Ethical Behavior, Customer Value,

<sup>&</sup>lt;sup>1</sup> Padmavathy, C., Balaji, M.S., & Sivakumar, V.J. (2012). Measured effectiveness of customer relationship management in Indian retail banks. International Journal of Bank Marketing, 30 (4), 246-266.

<sup>&</sup>lt;sup>2</sup> Nemati, A.R., Khan, K., & Iftikhar, M. (2010). Impact of Innovation on Customer Satisfaction and Brand Loyalty, A Study of Mobile Phones users in Pakistan. European Journal of Social Sciences, 16 (2).

<sup>&</sup>lt;sup>3</sup> Tu, Y.T., Wang, C.M., & Chang, H.C. (2012). Corporate Brand Image and Customer Satisfaction on Loyalty: An Empirical Study of Starbucks Coffee in Taiwan. Journal of Social and Development Sciences, 3 (1), 24-32.

<sup>&</sup>lt;sup>4</sup> Walsh, G., & Bartikowski, B. (2012). Exploring corporate ability and social responsibility associations as antecedents of customer satisfaction cross-culturally. Journal of Business Research, xxx, xxx-xxx

<sup>&</sup>lt;sup>5</sup> Lee, C.H. (2012). Extended Service Quality Model: Causes Of Agency Problems And Ethical Sales Behavior. Social Behavior and Personality, 40 (8), 1381-1400.

<sup>&</sup>lt;sup>6</sup> Martinez, P.R.D.L.G. (2008). Innovation Projects by Multinational Companies in Developing Countries: The Case of Mexico. Thesis Doctoral. New York: Faculty of Management. Rensselaer Polytechnic Institute.

<sup>&</sup>lt;sup>7</sup> Weng, M.H., Ha, J.H., Wang, Y.C., & Tsai, C.L. (2012). A Study Of The Relationship Among Service Innovation, Customer Value And Customer Satisfaction: An Empirical Study Of The Hotel Industry In Taiwan. The International Journal of Organizational Innovation, 4 (3).

<sup>&</sup>lt;sup>8</sup> Mulki, J.P., & Jaramillo, F. (2011). Ethical reputation and value received: customer perceptions. International Journal of Bank Marketing, 29 (5), 358-372.

Customer homogeneity, Citizenship behavioral, Interactional fairness, Positive affect (PA), and Causes of agency problem 9,10,11,12,13,14,15, 16,17,18. Among the two construct such as Innovation Capability and Ethical Behavior the researcher didn't find those two construct work together in their research regarding with the relationship of customer satisfaction. Indonesian banks research only use one among two construct, it does have an impact on the contribution of the research which only informs the importance of the construct they have been examined. Therefore this research have been conceptualized under two main constructs. The researchers conceptualized two constructs together to obtain more comprehensive information and deeper research contributions concerning with the two construct on relationship with Customer Satisfaction and Customer Loyalty.

#### THEORY AND HYPOTHESIS

## **Innovation Capability and Customer Satisfaction**

<sup>19</sup> defined innovation as the application of resources to create value for the customer and the enterprise by developing, improving and commercializing new, existing products, processes and services. Base on the previous research, the definition of Innovation Capability will be a capacity of organization to create new idea, process, product and service successfully.

<sup>20</sup>,<sup>21</sup> found that Innovation Capability has a significant and positive effect on Customer Satisfaction. <sup>22</sup> cited that innovative means that organizations are creating

<sup>9</sup> Ibid

<sup>10</sup> Ibid

<sup>&</sup>lt;sup>11</sup> Ibid

<sup>12</sup> Ibid

<sup>&</sup>lt;sup>13</sup> Spiteri, J.M. & Dion, P.A. (2004). Customer value, overall satisfaction, end-user loyalty, and market performance in detail intensive industries. Industrial Marketing Management. 33, 675-687.

<sup>&</sup>lt;sup>14</sup> Wu, L.W., & Wang, C.Y. (2012). Satisfaction and zone of tolerance: the moderating roles of elaboration and loyalty programs. Managing Service Quality, 22 (1), 38-57.

<sup>&</sup>lt;sup>15</sup> Yi, Y., Nataraajan, R., & Gong, T. (2011). Customer participation and citizenship behavioral influences on employee performance, satisfaction, commitment, and turnover intention. Journal of Business Research. 64, 87–95.

<sup>&</sup>lt;sup>16</sup> Namkung, Y. & Jang, S.C.S. (2009). The effects of interactional fairness on satisfaction and behavioral intentions: Mature versus non-mature customers. International Journal of Hospitality Management. 28, 397–405.

Noyan, F. & Simsek, G.G. (2011). Structural Determinants Of Customer Satisfaction In Loyalty Models: Turkish Retail Supermarkets. Procedia - Social and Behavioral Sciences. 30, 2134 – 2138.
18 Ibid

<sup>&</sup>lt;sup>19</sup> Terziovski, M. (2007). Building Innovation Capability in Organizations: An International Cross Case Perspective. Series on Technology Management-Vol.13. London: Imperial College Press.

<sup>&</sup>lt;sup>20</sup> Simon, A., & Yaya, L.H.P. (2012). Improving innovation and customer satisfaction through systems integration. Industrial Management & Data Systems, 112 (7), 1026-1043.

<sup>&</sup>lt;sup>21</sup> Eng, T.Y. (2011). Six Sigma: insights from organizational innovativeness and market orientation, International Journal of Quality & Reliability Management, 28 (3), 252-262.

<sup>&</sup>lt;sup>22</sup> Ibid

something new to increase their customer share and to satisfy their needs. Because innovation means coming up with something unique and different from competitors, it should be the result in a positive customer experience. <sup>23</sup> explore customer satisfaction in relation to service innovation and customer value. The results indicate that both service innovation and customer value have significant positive correlations with customer satisfaction and that service innovation has a significant intervening (or moderating) effect on the relationship between customer value and customer satisfaction. It suggests that higher customer satisfaction arise when hotel customers perceive higher customer value and higher service innovation. Base on the previous research this paper proposes hypothesis as follows:

**Hypothesis 1:** Innovation Capability has a significant and positive effect on Customer Satisfaction.

### Ethical Behavior and Customer Satisfaction.

<sup>24</sup> provide that ethics as an individual's personal beliefs about whether a behavior, action, or decision is right or wrong. Based on previous research, the definition of Ethical Behavior will be a set of moral principles prescribing a behavior, rules, or standards governing a person or a profession that explain what is good, right or bad and wrong that prescribe what humans ought to do, usually in term of duties, principles, specific virtues, or benefit to society.

<sup>25</sup>,<sup>26</sup> found that Ethical Behavior has a significant and positive effect on Customer Satisfaction. <sup>27</sup> cited that customer will consider behavior of a retailer as ethical if it meets or exceeds the moral/ethical norms that are expected by that customer relative to the particular retail environment in question. If the customer's ethical expectation is supported and reinforced, then it will positively affect the customer's overall satisfaction with the transaction. When it is not, the customer's overall satisfaction will likely be negative. <sup>28</sup> the main purpose of this research is to gain a clearer understanding of several key determinants and consequences of the ethical behavior of salesperson.

<sup>23</sup> Ibic

<sup>&</sup>lt;sup>24</sup> Griffin, R.W. (2008). Fundamentals of Management. Fifth Edition. USA: Cengage Learning, Inc.

<sup>&</sup>lt;sup>25</sup> Ibid

<sup>26</sup> Ibid

<sup>&</sup>lt;sup>27</sup> Thomas, J.L., Vitell, S.J., Gilbert, F.W., & Rose, G.M. (2002). The impact of ethical cues on customer satisfaction with service. Journal of Retailing, 78, 167-173.

<sup>&</sup>lt;sup>28</sup> Roman, S., & Munuera, J.L. (2005). Determinants and consequences of ethical behaviour: an empirical study of salespeople. European Journal of Marketing, 39 (5), 473-495.

Results suggest that method of compensation and control system (CS) are the important determinants of ethical behavior. Age (AGE) also proven as a significant antecedent of ethical behavior. However, education (EDU) is not significantly related to ethical behavior. Additionally, a salesperson's ethical behavior leads to lower levels of role conflict-interceder and higher levels of job satisfaction, but not higher performance. <sup>29</sup> this study is aimed to investigate real estate agents' relationships with buyers and sellers. The results indicate that: causes of agency problems can positively affect ethical sales behavior and real estate agent service quality. Real estate agents' improved ethical sales behavior can reduce customer complaint behavior and have a positive effect on customer loyalty. Real estate agent service quality has a positive effect on customer satisfaction and customer satisfaction has both a negative effect on customer complaint behavior and a positive effect on Customer Loyalty. Based on previous research this paper proposes hypothesis as follows:

**Hypothesis 2:** Ethical Behavior has a significant and positive effect on Customer Satisfaction.

## Customer Satisfaction and Customer Loyalty.

<sup>30</sup> assumed that customer satisfaction is measure of the organization's total product performance with respect to customer expectations (consisting of both formal and informal requirement). Based on the previous research, the definition of Customer Satisfaction will be a comparison between products perceived with that predicted before it was purchased or consumed. <sup>31</sup>loyalty is unspecified number of repeat purchases from the same supplier over a specified period. Type of loyalty includes behavioral, attitudinal. Base on the previous researches, the definition of Customer Loyalty will be a deeply held feeling of commitment on the part of the consumer to a product, brand, marketer, services or organization above and beyond that for the competitors in the market-place, which results in repeat purchase.

32,33 found that Customer Satisfaction has a significant and positive effect on

<sup>&</sup>lt;sup>29</sup> Ibid

<sup>&</sup>lt;sup>30</sup> Chou, S.Y., Trappey., Pokojski., & Smith. (2009). Global Perspective for Competitive Enterprise, Economy and Ecology: Proceedings of The 16th ISPE International Conference on Concurrent Engineering. London: springer Dordrecht Heidelberg London New York.

<sup>&</sup>lt;sup>31</sup> Egan, J. (2007). Marketing Communications. London: Thomson Learning.

<sup>32</sup> Ibid

<sup>&</sup>lt;sup>33</sup> Yap, B.W., Ramayah, T., & Shahidan, W.N.W. (2012). Satisfaction and trust on customer loyalty: a PLS approach. Business Strategy Series, 13 (4), 154-167.

Customer Loyalty. 34cited that a greater degree of customer satisfaction leads to a greater degree of individual loyalty. More specifically, satisfaction has also emerged as a strong predictor of loyalty in the context of the new information and communication technologies. In general, terms, if customers perceive that an organization fulfils the agreed conditions, they will feel satisfied and believe that this behavior will continue in the future. Consequently, their predisposition to develop the relationship with the organization will increase. At the same time, the alternatives in the market will be less attractive. In other words, satisfaction becomes a mechanism by which the customer differentiates between businesses and what they offer. 35 the purpose of this study is to examine the relationship between satisfaction, trust and loyalty by proposing satisfaction as an antecedent of trust. The result shows that service quality has a positive effect on customer satisfaction. This study also provided empirical evidence that satisfaction has a positive effect on trust and this trust will eventually has a positive influence on loyalty to the bank. Complaint handling is found to have a significant effect on satisfaction, trust and loyalty. Therefore, banks should not take complaint handling lightly as poorly handled complaints may be viewed by consumers as banks' incompetence and lack of care towards their customers. Based on the previous research this study proposes hypothesis as follows:

**Hypothesis 3:** Customer Satisfaction has a significant and positive effect on Customer Loyalty.

### **METHODOLOGY**

### Research Framework



Figure 1
Research framework

<sup>&</sup>lt;sup>34</sup> Casalo, L.V., Flavián, C., & Guinalíu, M. (2008). The role of satisfaction and website usability in developing customer loyalty and positive word-of-mouth in the e-banking services. International Journal of Bank Marketing, 26 (6), 399-417.
<sup>35</sup> Ihid

#### Measures

The variables are measured by Likert Scale with range from 7 to 1 in which 7 equal to "Strongly Agree" and 1 equal to "Strongly Disagree". The variables that are studied consist of latent exogenous variables and latent endogenous variables

Latent Exogenous Variable: (1) Innovation Capability, measured by 2 items for Process innovation, 2 items for Service innovation and 2 items for Marketing Innovation which are adopted by <sup>36</sup>. (2) Ethical Behavior, measured by 2 items for Honesty & integrity, 2 items for Compliance and 2 items for Transparency which are adopted by <sup>37</sup>. And Latent Endogenous Variable are: (1) Customer Satisfaction, measured by 2 items for Core service or service product, 2 items for Human element of service delivery and 2 items for Systematization of service delivery: non-human element which are adopted by <sup>38</sup>. (2) Customer Loyalty, measured by 2 items for Intention to stay and 2 items for Peripheral purchase which are adopted by <sup>39</sup>.

## Research Subject and Sampling

The samples in this study were all Bank customer in Pamekasan Regency. The sampling technique was done by using Convenience Sampling Method. Questionnaire was distributed on Bank in Pamekasan Regency. According to <sup>40</sup> the normal distribution of sample size to number of free parameter at least 2:1, so the sample size of present research are 49\*2=98 respondents. In order to ensure the reliability, this study collected 200 effective questionnaires.

## **Results and Discussion**

Data were analyzed using AMOS 17 software package and Structural Equation Model (SEM) program. According to <sup>41</sup> there were two-steps procedures of Structural Equation Model. First step is Measurement Model and the second step is Structural Model.

<sup>&</sup>lt;sup>36</sup> Lin, R.J., Chen, R.H., & Chiu, K.K.S. (2010). Customer relationship management and innovation capability: an empirical study. Industrial Management & Data Systems, 110 (1), 111-133.

<sup>&</sup>lt;sup>37</sup> Chowdhury, M.M.H. (2011). Ethical issues as competitive advantage for bank management. Humanomics, 27 (2), 109-120.

<sup>&</sup>lt;sup>38</sup> Schumacker, R. E., & Lomax, R. G. (2004). A beginner's guide to structural equation modeling, Second edition. Mahwah, NJ: Lawrence Erlbaum Associates.

<sup>&</sup>lt;sup>39</sup> Bloemer, J., Ruyter, K.D., & Peeters, P. (1998). Investigating drivers of bank loyalty: the complex relationship between image, service quality and satisfaction. International Journal of Bank Marketing, 16 (7), 276-286.

<sup>&</sup>lt;sup>40</sup> Bentler, P.M and Chou, C.P. (1987). Practical issues in structural modeling. Sociological Methods and Research 16, 78-117.

<sup>&</sup>lt;sup>41</sup> Kaplan, D. (2000). Structural Equation Modeling Foundation and Extensions. London: Sage publication.

### **Measurement Model**

### **Goodness Fit Indices**

This Measurement Model was estimated using Confirmatory Factor Analysis (CFA) method. According to  $^{42}$  the measurement of fit indices were Chi-square value ( $\chi$ 2), Goodness of Fit (GFI), Adjusted Goodness of Fit (AGFI), Root Mean Square Error of Approximation (RMSEA), Comparative fit index (CFI), and the other indicators was included in overall Measurement Model fit indices. Result analysis in Table 1 showed  $\chi$ 2/df-ratio of 2.88 were on interval 2. According to  $^{43}$  the acceptable range for normed chi-square was 1 to 3. It means that the model is acceptable. GFI, NFI, NNFI, and CFI are greater than or close to 0.9, so those are acceptable. For the RMSEA value was 0.08, it is still acceptable because according to  $^{44}$  the range of RMSEA 0.05 to 0.10 was acceptable. The overall measurement indices showed a good fit to the model.

Table 1
The Measurement Model Fit Result

| Index                                   | Result |
|-----------------------------------------|--------|
| Chi-squire (χ2)                         | 438.19 |
| Degree of Freedom (df)                  | 150    |
| $\chi^2/df$                             | 2.92   |
| Goodness of Fit (GFI)                   | 0.93   |
| Adjusted Goodness of Fit (AGFI)         | 0.84   |
| Root Mean Square Error of Approximation | 0.08   |
| (RMSEA)                                 |        |
| Root Mean Square of Residual (RMR)      | 0.06   |
| Normed fit index (NFI)                  | 0.93   |
| Non-normed Fit Index (NNFI)             | 0.94   |
| Comparative fit index (CFI)             | 0.96   |

## Reliability Analysis of Measurement Model

Reliability measurement model is use to fulfill the standards for the research

<sup>&</sup>lt;sup>42</sup> Hooper, D., J. Coughlan, & M.R. Mullen, (2008). Structural Equation Modelling: Guidelines for Determining Model Fit," The Electronic Journal of Business Research Methods, 6 (1), 53-60.

<sup>&</sup>lt;sup>43</sup> Ibio

<sup>&</sup>lt;sup>44</sup> Sureshchandar, G.S., Rajendran, C., & Anantharaman, R.N. (2002). The relationship between service quality and customer satisfaction - a factor specific approach. Journal of Services Marketing, 16 (4), 363-379.

variables, including all observed variables using the standardized factor loadings, and to calculate the composite reliability for each variable. Composite reliabilities in Table 2 are larger than 0.7. The recommended value of <sup>45</sup>, are greater than 0.60.

# Validity Analysis of Measurement Model

## **Convergent Validity**

Detection of qValidity in this study uses confirmatory factor analysis to measure the scale of convergent validity. From the Table 2, the standardized loading of all observed variables were greater than 0.7, and their t-values are significant (greater than 1.96), showing the path coefficient is significant, and this was the results of these indicators to meet the convergent validity <sup>46</sup>.

Table 2
Scale Composite Reliability and Convergent Validity Analysis

| Construct (F) and Indicators (V) |                               | Standardi |              | Indicat  |             |
|----------------------------------|-------------------------------|-----------|--------------|----------|-------------|
|                                  |                               | zed       | t            | or       | Composite   |
| CO.                              | istract (1) and materiors (v) |           | value        | Reliabil | Reliability |
|                                  |                               | Loading   |              | ity      |             |
| Innov                            | ration Capability (F1)        |           |              |          |             |
| V1                               | Process innovation            | 0.84      | 22.33        | 0.74     |             |
| V2                               | Marketing innovation          | 0.93      | 25.52        | 0.92     | 0.97        |
| V3                               | Service innovation            | 0.95      | 24.34        | 0.83     |             |
| Ethica                           | al Behavior (F2)              |           |              |          |             |
| V4                               | Honesty and integrity         | 0.81      | 19.93        | 0.67     | 0.92        |
| V5                               | Compliance                    | 0.97      | 26.55        | 0.95     | 0.92        |
| V6                               | Transparency                  | 0.93      | 24.69        | 0.87     |             |
| Custo                            | mer Satisfaction (F3)         |           |              |          |             |
| V7                               | Core service or service       | 0.80      | 19.22        | 0.64     |             |
| V /                              | product                       | 0.80      | 19.22        | 0.04     |             |
| V8                               | Human element of service      | 0.88      | 22.21        | .21 0.76 | 0.89        |
| v o                              | delivery                      |           | <b>44.41</b> | 0.70     |             |
| V9                               | Systematization of service    | 0.89      | 22.69        | 0.78     |             |

<sup>&</sup>lt;sup>45</sup> Fornell, C. & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18, 39-50.

<sup>&</sup>lt;sup>46</sup> Anderson, J.C. & Gerbing D.W. (1988). Structural equation modeling in practice: a review and recommended two step approach. Psychological Bullentin, 103,411-423.

delivery: non-human element

Customer Loyalty (F4)

| V10 | Intention to stay   | 0.87 | 22.12 | 0.77 | 0.84 |
|-----|---------------------|------|-------|------|------|
| V11 | Peripheral purchase | 0.81 | 19.72 | 0.66 | 0.84 |

## **Discriminant Validity**

The higher the correlation coefficient between two variables might indicate that the discriminant validity could not be satisfied. Therefore, this study intends to select "Ethical Behavior" and "Customer Satisfaction", "Ethical Behavior" and "Customer Loyalty" and "Customer Satisfaction" and "Customer Loyalty", which the correlation coefficient are 0.52, 0.63, 0.98 to verify that the two pairs of variables has discriminant validity.

The results in Table 3 showed that the chi-square difference between measurement and unidimensional measurement model for the one pair is significant. It can be conclude that those variables were distinct. In general, all measures were shown to have discriminant validity because the biggest of correlation among variables was significantly different.

Table 3
Discriminant validity analysis

|                   | Correlatio |       | Unidimension |           | The       | p-    |
|-------------------|------------|-------|--------------|-----------|-----------|-------|
|                   | n          |       | al           | Measureme | differenc | valu  |
|                   | Coefficien |       | Measurement  | nt Model  | e         | e     |
|                   | t          |       | Model        |           | C         | C     |
| Innovation        |            | Chi-  |              |           |           | _     |
| Capability        |            | squar | 996.95       | 429.28    | 567.67    |       |
| $\leftrightarrow$ | 0.52***    | e     |              |           |           | <     |
| Customer          | 0.52       |       |              |           |           | 0.001 |
| Satisfactio       |            | DF    | 149          | 148       | 1         |       |
| n                 |            |       |              |           |           |       |
| Innovation        | 0.63***    | Chi-  | 637.36       | 426.27    | 211.09    | <     |
| Capability        | 0.03       | squar | 037.30       | 120.27    | 211.07    | 0.001 |
|                   |            |       |              |           |           |       |

| $\leftrightarrow$   |         | e     |        |        |        |       |
|---------------------|---------|-------|--------|--------|--------|-------|
| Customer            |         | DF    | 140    | 140    | 1      |       |
| Loyalty             |         | DF    | 149    | 148    | 1      |       |
| Customer            |         | Chi-  |        |        |        |       |
| Satisfactio         |         | squar | 534.21 | 426.24 | 107.97 | <     |
| $n \leftrightarrow$ | 0.98*** | e     |        |        |        | 0.001 |
| Customer            |         | DF    | 149    | 1 / 0  | 1      | 0.001 |
| Loyalty             |         | Dr    | 149    | 148    | 1      |       |

Note: \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.

## Common Method Variance (CMV)

The effect of common method variance (CMV) is a major potential validity threat in social sciences research <sup>47</sup>. When two or more variables are collected from the same respondents and an attempt is made to interpret their correlation, a problem of CMV could happen. In the line opinion of <sup>48</sup> that common method variance refers to a bias which occurs from having a common rater, a common measurement context, a common item context, or from the characteristics of the items themselves. Common method variance can have a substantial impact on the observed relationship between predictor and criterion variables in organizational and behavioral research.

This study used two ways to test the common method variance. First is Harman's single factor test. It stress if the majority of the variance can be explained by a single factor. The result for this test showed that the value of CMV was 35.71% which below from 50%.. According to <sup>49</sup> that CMV is not assumed to exist because a first factor doesn't explains the majority of the variance in the variables.

Second, this study used a common latent factor to capture the common variance among all observed variables in the model. The significant of the differences between common method model and measurement model was tested. The result showed in table 4 that the p value was less than 0.05. Overall of the CMV analysis indicate that there is no bias in the answer, so there was a low potential validity threat to the finding of this research.

<sup>&</sup>lt;sup>47</sup> Sharma, R., Yetton P., & Crawford J. Estimating the effect of common method variance: The method-method pair technique with an illustration from TAM research. MIS Quarterly, 33(3), 473-490.

<sup>&</sup>lt;sup>48</sup> Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. Journal of Applied Psychology, 88, 879-903.
<sup>49</sup> Ibid

Table 4
Common Latent Factor Result

|                | Common Latent<br>Model | Measurement<br>Model | The difference | p-value |
|----------------|------------------------|----------------------|----------------|---------|
| Chi-<br>square | 61209.51               | 428.87               | 60780,64       | < 0.05  |
| DF             | 173                    | 151                  | 22             |         |

### Structural Model

Table 5
Structural Model Goodness Fit Indices

| C 1: 1M 11     |    |      |     |      |     |     |      | St   | ructu | ral  |     |      |
|----------------|----|------|-----|------|-----|-----|------|------|-------|------|-----|------|
| Combined Model |    |      |     |      |     |     |      |      | ]     | Mode | 1   |      |
| Chi-           | D  | χ2/  | G   | AG   | CF  | NF  | NN   | RM   | RMS   | RN   | RP  | RPF  |
| square         | F  | df   | FI  | FI   | I   | I   | FI   | R    | EA    | FI   | R   | I    |
| 462.40         | 15 | 2.05 | 0.9 | 0.02 | 0.9 | 0.9 | 0.05 | 0.05 | 0.06  | 0.04 | 0.2 | 0.26 |
| 463.42         | 7  | 2.95 | 2   | 0.83 | 4   | 3   | 0.95 | 0.05 | 0.06  | 0.94 | 5   | 0.26 |

This study provides empirical research about the antecedents of Customer Satisfaction. To examine the research hypothesis, this research used analysis of Structural Equation Model. The result of overall goodness fit of structural model was shown at Table 5. Chi-square ( $\chi$ 2)/df-ratio were 2.95. According to  $^{50}$  the acceptable range for normed chi-square was 1 to 3. GFI and NNFI still acceptable because larger than 0.8 and close to 0.9. RMSEA still was acceptable because it equal or less than 0.1. Overall of the goodness fit indices of structural model is acceptable. The structural model RNFI must be greater than 0.9, the closer to 1 is the better. RPR is in the detection of structural models to parsimony degree, the range from 0.0 to 1.0 the greater the better the goodness of fit. RPFI can be helpful in choosing the model that simultaneously maximizes both fit and parsimony in the structural portion of the model. With the RPFI, higher values are more desirable. It can be seen from Table 5 RNFI= 0.94, of RPR = 0.25,

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<sup>&</sup>lt;sup>50</sup> Ibid

and RPFI = 0.26, this structural model indicated has a good goodness of fit and parsimony.

Table 6
Structural Model Path Coefficient

| Depende    |                        | Standardized |          | Square            |  |
|------------|------------------------|--------------|----------|-------------------|--|
| nt         | Independent Variable   | path         | t value  | Multiple          |  |
| Variable   |                        | coefficient  |          | Correlation ( r²) |  |
| Custome    | Innovation Capability  | 0.37         | 8.43***  |                   |  |
| r          | (H1)                   | 0.37         | 0.43     | 0.66              |  |
| Satisfacti | Ethical Behavior (H2)  | 0.15         | 3.50**   | 0.00              |  |
| on         | Ethical Behavior (112) | 0.13         | 0.50     |                   |  |
| Custome    | Customer Satisfaction  | 0.97         | 25.32*** | 0.98              |  |
| r Loyalty  | (H3)                   | 0.71         | 20.02    | 0.90              |  |

Note: \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.

This part explored validation for the hypothesis. The causal path between the latent variables in the research hypothesis (H1 to H3) and the analysis results are shown in Table 6. The path of structural model result was shown in Figure 1. From the table results, the path coefficients were: Innovation Capability  $\rightarrow$  Customer Satisfaction were 0.34; Ethical Behavior  $\rightarrow$  Customer Satisfaction were 0.11; and Customer Satisfaction  $\rightarrow$  Customer Loyalty were 0.99. Furthermore, "Customer Satisfaction" as the dependent variable, the  $r^2$  value was 0.64; and the "Customer Loyalty"  $r^2$  was 0.97. According to  $r^2$  categorized  $r^2$  effect sizes as: small: 0.02; medium: 0.13; large: 0.26, so it can be regarded that Customer Satisfaction and Customer Loyalty as having a high degree of support. The result for the path analysis can be seen in Table 6.

<sup>51</sup> Kleijnen, M., de Ruyter, K. & Wetzels, M. (2007). An Assessment of Value Creation in Mobile Service Delivery and the Moderating Role of Time Consciousness, Journal of Retailing, 83(1), 33-46.

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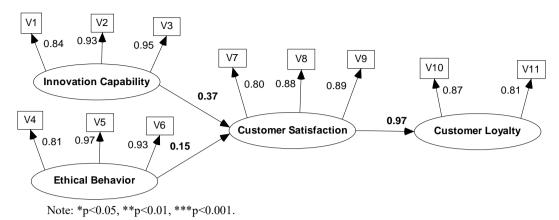


Figure 2
Structural Model result

### CONCLUSION

According to the result and discussion, this section would address conclusion, limitation and suggestion.

### **Research Conclusion**

## The effect of Innovation Capability on Customer Satisfaction (H1 is Significant).

According to previous analysis and discussion, it indicates Innovation Capability has a significant and positive effect on Customer Satisfaction (coefficient=0.37, t=8.43, p<..001). This result is consistent with the previous empirical research by <sup>52</sup> Innovation Capability has a significant and positive effect on Customer Satisfaction. It indicates innovation capability plays a critical role in influencing on Customer Satisfaction. Bank can increase the Customer Satisfaction by improving three alternatives such as: (1) Process innovation. Example, a) Bank should be able to adopt new process technology better than the competitor. And b) Bank should be able to obtain process technology patents better than the competitor. (2) Marketing innovation. Example, a) Bank should be able to continually enlarges potential demand markets better than the competitor. And b) the bank should be able to utilize advanced CRM systems in markets better than the competitor. And (3) Service innovation. Example, a) Bank should be able to develop innovative before-sale or after-sale service methods better than the competitor. And b) Bank should be able to adopt innovative order management and follow-up systems better than the competitor.

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<sup>&</sup>lt;sup>52</sup> Ibid

## The effect of Ethical Behavior on Customer Satisfaction (H2 is Significant).

The result from previous analysis found that Ethical Behavior has a significant and positive effect on Customer Satisfaction (coefficient=0.15, t=3.50, p<.001). Following to <sup>53</sup>,<sup>54</sup>research, this study supports that Ethical Behavior has a significant and positive effect on Customer Satisfaction. It indicates Ethical Behavior plays a critical role in influencing on Customer Satisfaction. Bank can increase the Customer Satisfaction by improving three alternatives such as: (1) Honesty and integrity. Example, a) Bank executives should do not take bribe. And b) the bank should do not encourage customers to conduct illegal transaction. (2) Compliance. Example, a) Bank should maintains conformity in charges as they promise. And b) Bank should maintains conformity as it promotes its products and services. And (3) Transparency. Example, a) the bank executives should do not approve false financial statement. And b) Bank should do not collect cross cheque other than the actual payee.

## The effect of Customer Satisfaction on Customer Loyalty (H3 is Significant).

The result from previous analysis found that Customer Satisfaction has a significant and positive effect on Customer Loyalty (coefficient=0.97, t=25.32, p<.001). Following to 55,56 research, this study supports that Customer Satisfaction has a significant and positive effect on Customer Loyalty. It indicates Customer Satisfaction plays a critical role in influencing on Customer Loyalty. Bank can increase the Customer Loyalty by improving three alternatives such as: (1) Core service or service product. Example, a) the bank should have a wider range of financial services, e.g. deposits, retirement accounts, loans for purchases of cars, houses, foreign exchange, traveler's cheques, safe deposit lockers, etc.) And b) the bank should provide information/details on a regular basis through post; telephonic banking; ATM; room service facility; cards to defense personnel, etc.). (2) Human element of service delivery. Example, a) the employee of the bank should have willingness to help customers and the readiness to respond to customers" requests. And b) the bank should make customers feel safe and secure in their transactions. And (3) Systematization of service delivery: non-human element. Example, a) the banks' employee should have adequate and necessary personal for good

<sup>53</sup> Ibid

<sup>54</sup> Ibid

<sup>55</sup> Ibid

<sup>56</sup> Ibid

customer service. And b) the banks' employee should have adequate and necessary facilities for good customer service.

## Limitation, Suggestion and Managerial implications

Although the analyze antecedents of Customer Satisfaction was based on extant research findings with the changing of environment business, the analyze antecedents of Customer Satisfaction may change over time. Based on previous analyzing in this research, it has the limitation and suggestion for further research.

### Limitation

This study has some limitations. First, the sample features (i.e. convenience sample) warrant caution before generalizing the results beyond the population studied and require replication of the scale to other industries and nations for generalizability. Second, this study focused on Bank because it was based on the data from customer of Bank in Pamekasan regency, so it generalizes at Bank field. Third, this research considered customer perceptions towards Innovation Capability and Ethical Behavior and future research should examine employee perceptions towards relationship practices and its outcomes on business performance.

### Suggestion

This study can be extended in several directions for further research. There are suggestions based on this study. First, this study focused on Bank field and in the specific area in Pamekasan regency. The suggestion for future research cans extent the result by analyzing different Regency. Second, the analysis method of this study is a cross-sectional analysis. The aim is to explore the antecedents of Customer Satisfaction within a certain period of time, and the effect to Customer Loyalty. However, some variables may be changes over time so it makes the results change. Therefore, this study suggests that future researchers can develop theoretical model to be more exhaustive construct. Third, the theoretical framework in this study consists of 4 variables as research variables such as Innovation Capability, Ethical Behavior, Customer Satisfaction and Customer Loyalty. Therefore, this study suggests that future research can develop the study by analyzing other antecedents such as Costumer Relationship Proneness (CRP)

<sup>57</sup>,Customer Relationship Management (CRM) <sup>58</sup>, Customer Value <sup>59</sup> and Corporate Social Responsibility (CSR) <sup>60</sup>.

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## Managerial implications

The study findings have significant implications for bank managers. We identified the key dimensions of Innovation Capability and Ethical Behavior that should be implemented to enhance the business performance. The 6 dimensions to measure the effectiveness of Innovation Capability and Ethical Behavior efforts in Pamekasan regency banks namely, Process innovation, Marketing innovation and Service innovation for Innovation Capability, and Honesty & integrity, Compliance and Transparency for Ethical Behavior, those all dimensions are important in enhancing Customer Satisfaction. Those scales can also be used as a tool by the banks to identify the aspects of Innovation Capability, and Ethical Behavior where improvements are needed to increase the levels of Customer Satisfaction and Customer Loyalty. Periodic assessment of the effectiveness of Innovation Capability, and Ethical Behavior, using those scales could help bank managers track changes in Innovation Capability, and Ethical Behavior dimensions that impact Customer Satisfaction and Customer Loyalty over time. The identification of those dimensions enables bank managers to design an effective Innovation Capability, and Ethical Behavior that fosters enduring relationships with customers. Further, those dimensions emphasize that Innovation Capability, and Ethical Behavior efforts should focus on those 6 dimensions above 61, 62, 63, 64,65. Thus, bank managers should focus on orchestration (harmonization and combination) of all the 6 dimensions to Innovation Capability, and Ethical Behavior effectiveness. The finding shows Ethical Behavior has smaller path coefficient that influence Customer Satisfaction. The bank managers should emphasize more proactive and aggressive in

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<sup>57</sup> Ibid

<sup>&</sup>lt;sup>58</sup> Sin, L.Y.M., Tse, A.C.B., & Yim, F.H.K. (2005). CRM: conceptualization and scale development. European Journal of Marketing, 39 (11), 1264-1290.

<sup>59</sup> Ibid

<sup>&</sup>lt;sup>60</sup> Khan, M.H.U.Z. (2010). The effect of corporate governance elements on corporate social responsibility (CSR) reporting: Empirical evidence from private commercial banks of Bangladesh. International Journal of Law and Management, 52 (2), 82-109.

<sup>&</sup>lt;sup>61</sup> Ibid

<sup>62</sup> Ibid

Yeo, R.K., & Youssef, M.A. (2010). Communicating corporate image into existence: the case of the Saudi banking industry.
 Corporate Communications: An International Journal, 15 (3), 263-280.
 Ibid

<sup>&</sup>lt;sup>65</sup> Ibid

competitive to meet with the opportunity by improving three alternatives namely, Honesty & integrity, Compliance and Transparency <sup>66</sup>. Another implication from this study is that the Customer Satisfaction and Customer Loyalty from relational perspective provide opportunities for banks to cross-sell other banking products/services. Thus, managers should focused on relational practices that enhance satisfaction and loyalty as the customers are likely to spread their purchases across different categories offered by the bank. Moreover, this implies that the bank managers should pay attention to customers who are at a specific point of relationship with the bank for cross-selling of other banking products.

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