

## FEMALE CUSTOMERS FOMO: THE ROLE OF THREATS AND CAPABILITIES TOWARDS CO-CREATION OF PROTECTION IN ONLINE BANKING SERVICES

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| Article Info  | Abstract  |
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| <p>Accepted February, 2025</p> <p>Revised March, 2025</p> <p>Published March, 2025</p>                                      | <p><i>This study aims to examine the effect of threat assessment and coping ability on the co-creation behavior of female customers in using digital banking services, with FOMO as a moderating variable. This study uses a survey research design, where data is collected through questionnaires distributed to female customers who use online banking from big cities in Indonesia. They are at least 17 years old, have used digital banking services for more than a year, and make transactions regularly. The results of the study indicate that threat assessment and coping ability have a positive effect on co-creation behavior. The ability to cope with risks also strengthens the involvement of female customers in joint protection. Meanwhile, FOMO is confirmed to moderate the relationship between threat assessment and co-creation behavior, but does not moderate the relationship between coping ability and the behavior. These findings emphasize the importance of the role of threat perception, digital literacy, and banking technology innovation in creating a safer and more trusted digital banking ecosystem.</i></p> |
| <p><b>Keywords:</b><br/><i>female customers, threat assessment, coping skills, co-creation behavior, online banking</i></p> |   |

### INTRODUCTION

In recent decades, digital transformation has transformed many industries, including banking (Ngamal & Maximus Ali Pejaka, 2021). Due to the ease of access and ease of making transactions without having to visit a branch office, digital or online banking is increasingly in demand by customers (Gultom & Rokan, 2022). With this technology, you can take advantage of various services such as money transfers, bill

payments, and investments in real time via mobile devices or computers. According to (Hetty et al., nd) with the increasing use of the internet and smartphones in society, the number of people using digital banking services in Indonesia has increased rapidly in recent years. This progress carries great risks and benefits.

Cybersecurity is the biggest issue in taking over online banking services. With the development of technology, digital security threats such as account hacking, personal data theft, phishing, and other cyber attacks continue to increase (Radiansyah & Priyadi, 2016). Customers often feel vulnerable to these risks, which can ultimately affect their trust in banking services. This risk perception is a major factor in determining whether customers will use digital banking services or even actively participate in maintaining the security of these services (Tanuwijaya & Arifin, 2023).

However, threat perception alone does not fully influence customer behavior. In addition, a person's ability to face and manage the threat is very important. Protection Motivation Theory (Fatimah, 2022) states that people who feel they are able to face threats are more likely to protect themselves. Knowledge of cybersecurity techniques, such as using strong passwords, enabling two-factor authentication, and understanding fraud strategies such as phishing, can be this ability in terms of online banking. The better the customer's ability to handle threats, the more likely they are to collaborate with the bank to build protection, which helps create a safer banking environment (Royo-Vela et al., 2024).

In addition, fear of strangeness also known as FOMO, is an important factor in decision making in this digital era. FOMO is a feeling that someone experiences when they feel they might miss out on important experiences or information, especially in the fast-paced digital world (Arief et al., 2024). Digital banking can experience FOMO when customers are afraid of missing out on the convenience and benefits offered by online banking services, such as special promotions, payment discounts, or quick access to financial information (Khasbulloh et al., 2023). This feeling often arises when users feel compelled to always keep up to date with technological developments, the latest features, or exclusive promotions offered by banks through digital platforms. This encourages them to continue using the service even though they feel there is a threat or security risk. Therefore, FOMO can function as a moderation that influences how threat perceptions and risk coping abilities impact customer protective co-creation behavior. The role of moderation in this study is to explain how FOMO affects the relationship between the independent variables (threats and coping abilities) and the dependent variable (protection co-creation behavior). As a moderating variable, FOMO can strengthen or weaken the relationship, depending on the level of FOMO perceived by female customers.

### RESEARCH METHODS

The research method used in this study is a quantitative method, namely research data in the form of numbers measured using statistical tests related to the problem to be studied. The population in this study were all employees at PT. Dian Mega Kurnia, totaling 120 employees. Furthermore, the sampling technique used the Slovin formula with a Margin of Error of 5% so that a sample of 92 was produced, with the following

calculation:

n = Number of Samples

N = Population Size

e = Margin Error

It is known

N = 120

e = 5%

Calculation:

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{120}{1 + (120 \times (0,05)^2)}$$

$$n = \frac{120}{1 + (120 \times 0,0025)}$$

$$n = \frac{120}{1 + 0,3}$$

$$n = \frac{120}{1,3}$$

$$n = 92,30 \rightarrow \text{rounded up to 92 samples}$$

The sampling technique used in determining the number of samples in this study is probability sampling. It is carried out using a simple random sampling method in the observation data collection technique and questionnaires or questionnaires distributed to several respondents at PT Dian Mega Kurnia. Furthermore, in measuring opinions, attitudes, treatments using a Likert scale using a score of 1-5 consisting of 5 (strongly agree), 4 (agree), 3 (neutral), 2 (disagree), 1 (strongly disagree). The data analysis method in this study uses the SPSS method in its calculations. By conducting validity tests, reliability tests, r-square tests, and hypothesis tests on each variable in the study.

### **Measurement**

The construct measurement in this study was adopted from previous studies. Customer assessment of threat was measured using five items (De Santo & Gaspoz, 2015), coping assessment adopted five items (Ghazali et al., nd), PCB used seven items (Mainardes et al., 2017), and FOMO used five items (Good & Hyman, 2020; Przybylski et al., 2013). The variables used in this study were measured using a Likert scale of 1 to 7 with the information 1 = "strongly disagree" to 7 = "strongly agree". This research instrument was measured and tested initially on 35 respondents.

The measurement results of the instrument show the Cronbach's Alpha value on the Threat variable of (0.814), the Coping Ability assessment variable (0.792), the Protective Co-Creation Behavior variable (0.876) and the FOMO variable (0.880). The data shows that the results of the measurements and initial trials are valid and reliable.

### *Population and sampling techniques*

The population of this study were active online banking users at the four largest banks in Indonesia, who have been using online banking for quite a long time, namely BRI, Mandiri, BCA, and BNI. The criteria used for these female customers were having used online banking for more than one year and using online banking transactions more than three times a month. To take the research sample, the purposive sampling method was used.

In this study, there are several sample criteria that have been determined, namely respondents are at least 19 years old, respondents are female, respondents have been bank customers for at least 1 year, respondents have online banking, and respondents have made transactions via online banking at least 1 time in the last 1 month. The determination of the respondent criteria is expected to have a fairly high insight into online banking. Determining the duration of being a customer is done because this study requires views from customers who actually use online banking services.

### *Analysis techniques*

This study uses two analysis techniques, namely descriptive analysis and statistical analysis. Respondents' answers to the questionnaire are described in general through descriptive analysis techniques, and testing of the hypothesis uses SEM PLS statistical analysis using WarpPLS8.

## RESULTS AND DISCUSSION

### Data Analysis Results

#### 1. Descriptive Analysis

Descriptive analysis is used in this study to provide an overview of the characteristics of the collected data. By using this technique, researchers can identify the variables studied, as well as describe the data in the form of easily understood statistical figures, such as frequency, average, and percentage.

**Table 1.** Mean, Standard Deviation, and Loading Factor

| Constructs and Items   | Mean | Std. Deviation | Factor Loading |
|--|------|----------------|----------------|
| <b><i>Threat assessment</i></b>  |      |                |                |
| PA1. Becoming a victim of digital banking risks is a serious problem.        | 5.78 | 1,390          | 0.797          |
| PA2. Losses due to digital banking risks are a serious problem               | 5.99 | 1,378          | 0.785          |
| PA3. Loss of productivity due to digital banking fraud is a serious problem. | 5.81 | 1,271          | 0.757          |
| PA4. Data loss due to digital banking fraud is a serious problem.            | 5.96 | 1,247          | 0.781          |
| PA5. I feel there is a threat of cyber fraud from digital banking.           | 5.33 | 1,478          | 0.624          |

| <i>Advanced</i>  |      |                |                |
|--|------|----------------|----------------|
| Constructs and Items   | Mean | Std. Deviation | Factor Loading |
| <b><i>Ability to cope</i></b>  |      |                |                |
| PP1. The large number of consumer protection socializations can protect the public from the risk of online banking fraud.                              | 5.63 | 1,190          | 0.639          |
| PP2. Various government regulations, education, literacy, supervision methods are able to protect the public from the threat of digital banking risks. | 5.58 | 1,217          | 0.748          |
| PP3. I know what to do if a digital banking risk occurs  | 5.57 | 1,217          | 0.707          |
| PP4. I prepare the necessary steps before the digital banking risk occurs.   | 5.73 | 1,180          | 0.742          |
| PP5. I master various ways to overcome digital banking risks.  | 5.35 | 1,285          | 0.743          |
| <b><i>FOMO</i></b>   |      |                |                |
| RT1. I'm worried that other people are getting more valuable experiences than me.  | 3.89 | 1,832          | 0.890          |
| RT2. I'm worried that my friends will get more valuable experience than me.  | 3.85 | 2,061          | 0.908          |
| RT3. I worry when my friends are having fun without me in it.  | 4.11 | 1,918          | 0.883          |
| RT4. I would be anxious about missing information.   | 4.61 | 1,867          | 0.838          |
| <b><i>Protective co-creative behavior</i></b>  |      |                |                |
| KK1. I am looking for information on how to overcome digital banking risks from various sources.   | 5.57 | 1,233          | 0.670          |
| KK2. I share information on how to deal with digital risks with others.  | 5.63 | 1,218          | 0.758          |
| KK3. I fulfill my obligations as a user of safe digital banking services.  | 5.80 | 1,215          | 0.636          |
| KK4. I follow the bank or government's instructions in dealing with digital banking risks.   | 5.90 | ,975           | 0.730          |
| KK5. When I have an idea on how to deal with digital banking risks, I share it with others.  | 5.51 | 1,157          | 0.658          |
| KK7. I help others how to deal with digital banking risks  | 5.62 | 1,224          | 0.750          |

From the table above, it is known that the mean of the threat variable is 5.774, which means that the respondent's perception of the threat is high, the mean of the ability to repeat variable is 5.572, Fear of Missing Out is 4.115, and protective co-creation behavior is 5.671. Overall, the data shows that respondents have a high perception of threat to digital banking risks, but also have the ability to overcome these risks, both through preventive measures and co-creation actions. The loading factor values, which are mostly above 0.6, indicate good measurement validity for each construct. Respondents tend to be more concerned about direct threats (such as financial losses) compared to the FOMO aspect, which tends to be more personal.

## 2. Validity and Reliability

Convergent and discriminant validity are two important aspects in evaluating construct validity in quantitative research. Convergent validity refers to the extent to which an instrument or construct is highly correlated with other constructs that should have a strong theoretical relationship. For example, if the variable "coping ability" is measured using several indicators, the indicators should have a significant correlation with each other, indicating that

they are measuring the same concept (Sarstedt et al., 2019). Discriminant validity, on the other hand, measures the extent to which the construct is different from other unrelated constructs. This ensures that the instrument is not only measuring one concept but also does not overlap with other different concepts (Henseler et al., 2015).

Reliability refers to the consistency of measurement results over time or between indicators. An instrument is considered reliable if it produces consistent results even when repeated measurements are taken. One indicator of reliability is the Cronbach's Alpha value, which ideally should be above 0.7 to indicate good reliability.

**Table 2.** Validity and Reliability

| Construction                      | Code     | PA      | PP      | KT      | KK      |
|-----------------------------------|----------|---------|---------|---------|---------|
| Threat                            | PA       | (0.751) | 0.294   | 0.179   | 0.321   |
| Ability to cope                   | PP       | 0.294   | (0.717) | 0.095   | 0.653   |
| FOMO                              | RT       | 0.179   | 0.095   | (0.880) | 0.134   |
| Protective Co-creation Behavior   | KK       | 0.321   | 0.653   | 0.134   | (0.702) |
| <i>Composite reliability</i>      | CR       | 0.865   | 0.841   | 0.932   | 0.853   |
| <i>Cronbach's alpha</i>           | $\alpha$ | 0.805   | 0.763   | 0.903   | 0.793   |
| <i>Average variance extracted</i> | AVE      | 0.564   | 0.514   | 0.774   | 0.493   |

Based on the table of data processing results, analysis can be done by considering construct validity, reliability, and Average Variance Extracted (AVE) values. The correlation value between constructs shows that the diagonal value (in parenthesis) is the square root value of the AVE of each construct. This value must be greater than the correlation between constructs to prove discriminant validity. For example, the square root value of AVE for Threat is 0.751, which is greater than the correlation with other constructs such as Coping Ability (0.294), FOMO (0.179), and Protective Co-Creation Behavior (0.321). This shows quite good discriminant validity.

Construct reliability is measured through Composite Reliability (CR) and Cronbach's Alpha values. The CR values for all constructs are above 0.7, namely Threat (0.865), Coping Ability (0.841), FOMO (0.932), and Protective Co-Creation Behavior (0.853). The Cronbach's Alpha value is also quite high with a minimum value of 0.763 for Coping Ability and a maximum of 0.903 for FOMO, indicating that all constructs have good internal reliability.

AVE indicates the extent to which variance is extracted by each construct relative to the error variance. A minimum AVE value of 0.5 is considered adequate. The table shows that Threat (0.564), Coping Ability (0.514), and FOMO (0.774) have AVE above 0.5, while Protective Co-Creation Behavior is slightly below the standard with a value of 0.493. However, this value is close to the acceptable threshold. Overall, the results of the analysis indicate that the constructs in this study have met the reliability and validity criteria needed to support further analysis. Minor weaknesses in the AVE of Protective Co-Creation Behavior can be overcome by considering theoretical justification or additional tests.

### 3. Hypothesis Testing

| Hyp | Hypothesis   | VIF   | Beta, p-value  | Conclusion    |
|-----|--|-------|----------------|---------------|
| H1  | Threat assessment → Protective co-creation behavior      | 1.232 | 0.240 (0.001)  | Supported     |
| H2  | Coping skills → protective co-creative behavior          | 1.156 | 0.565 (0.001)  | Supported     |
| H3  | FOMO*Threat assessment → protective co-creative behavior | 1,085 | 0.131 (0.050)  | Supported     |
| H4  | FOMO*coping ability → protective co-creative behavior    | 1.109 | -0.034 (0.339) | Not Supported |

Based on the results of the analysis of the relationship between variables as shown in the table, hypothesis testing shows varying results. Hypothesis H1 which states that Threat assessment has a positive effect on Protective Co-creation Behavior is supported by a beta coefficient value of 0.240 and a significant p-value of 0.001 ( $p < 0.05$ ), and a Variance Inflation Factor (VIF) value of 1.232, indicating no multicollinearity problems. H2 is also supported, where the Ability to cope has a significant positive effect on Protective Co-Creation Behavior with a beta of 0.565 and a p-value  $< 0.001$  and a VIF of 1.156, indicating a strong influence. For H3, FOMO moderates the relationship between Threat and Protective Co-creation Behavior with a beta of 0.131 and a p-value of 0.050, so this hypothesis is accepted with a marginal level of significance.

However, the hypothesis H4 states that FOMO moderates the relationship between Coping Ability and Protective Co-creation Behavior was not supported, with a negative beta of -0.034 and a p-value of 0.339, indicating that the moderation was not significant. Overall, these results indicate that Threat and Coping Ability have a positive influence on Protective Co-creation Behavior, while the moderating role of FOMO is only significant on the relationship between Threat and Protective Co-creation Behavior.

## CONCLUSION AND SUGGESTIONS

### Conclusion

This study shows that threats and coping skills have a significant influence on the protective co-creation behavior of female customers who use digital banking services. Perceived threats, such as potential fraud, identity theft, and cyberattacks, encourage customers to be more active in using security features provided by the bank, comply with protection policies, and provide constructive feedback. This finding is consistent with the Protection Motivation Theory (PMT), which states that threat perceptions encourage individuals to take protective actions. Therefore, banks are advised to strengthen risk communication and security education to increase active customer participation in maintaining the security of their digital services.

In addition, customers' ability to cope with threats, such as knowledge and skills in managing digital risks, also contributes significantly to protective co-creation behavior.

Customers who have high confidence in their ability to deal with threats tend to be more active in adopting security measures, such as using two-factor authentication, updating passwords regularly, and following the bank's recommended protection procedures. This confirms that customer confidence and technical ability are important elements in creating a safe and trusted digital banking environment.

The study also found that FOMO moderates the relationship between threats and protective co-creation behavior. Customers who experience FOMO feel compelled to continue using digital banking services even though they are aware of security threats. The fear of being left behind by the convenience or benefits offered by the service encourages them to take preventive measures and stay updated with the latest security features. FOMO, in this context, is a strong driver for customers to be more actively involved in protective efforts with the bank.

However, the role of FOMO as a moderator in the relationship between coping ability and protective co-creation behavior is not significant. This indicates that although FOMO can strengthen customers' involvement in facing threats, this factor does not affect their level of self-confidence or technical ability in coping with risks. Overall, the results of this study confirm that threats and coping abilities have a strong direct influence on protective co-creation behavior, while FOMO plays a moderating role that varies depending on the context of the threat faced.

### **Managerial Implications**

The results of this study provide several important implications for banking management in efforts to improve digital service security and customer involvement in co-creation of protection. First, with the threat variable loading factor values (PA1 to PA5) mostly above 0.7, banking management needs to be aware that threat perception has a significant influence on co-creation of protection behavior. The average threat score of 5,774 indicates that customers have a high awareness of digital banking risks, such as fraud and cyber attacks. Therefore, banks must proactively improve communication regarding potential risks and security education to customers. This can be done through digital literacy campaigns, security training, and regular notifications regarding the latest threats, thus increasing customer trust in the security of digital services.

Second, the ability to cope with threats, which has a strong loading factor on PP1 to PP5 with an average score of 5,572, indicates that customers feel quite capable of managing digital banking risks. However, banks need to continue to provide support in the form of clear security guidelines and easy-to-use protection features, such as two-factor authentication and real-time transaction notifications. This strategy not only increases customers' sense of security but also strengthens their involvement in maintaining shared security. With increased confidence, as indicated by high loading factors on items related to ability, customers will be more motivated to actively participate in maintaining the security of their data. Third, the role of FOMO as a moderator shows mixed results. The loading factor for FOMO items (RT1 to RT4) is above 0.8, with an

average score of 4.115, indicating that although FOMO is not always significant in increasing the influence of ability to cope with co-creation behavior of protection, FOMO can strengthen the relationship between threats and protection behavior. Banks can take advantage of this phenomenon by creating a sense of urgency through promotions of the latest security features or educational campaigns that emphasize the importance of following security innovations. This will encourage customers to adapt more quickly to new protective measures, especially when they fear missing out on opportunities for better security.

Overall, by leveraging threat perception, enhancing coping capabilities, and leveraging FOMO, banks can strengthen customer engagement in protecting digital banking services. This will create a safer banking ecosystem and increase customer loyalty to the bank's digital services.

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