WHAT DETERMINES E-LOYALTY AND E-TRUST OF INDONESIAN MUSLIM LECTURERS USING VIDEO CONFERENCE?

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ABSTRACT - This study examines the effect of perceived privacy and perceived security on e-trust and e-loyalty of Muslim lecturers using video conference media in Indonesia. Additionally, the role of e-trust as a mediator in this relationship and the role of consumer innovativeness as a moderator of the relationship between e-trust and e-loyalty are investigated. The samples consisted of 250 respondents selected using a purposive sampling technique. The data was collected by a questionnaire survey and analyzed in AMOS using Structural Equation Modelling. The results indicate that perceived privacy and security considerably and favorably influenced e-trust. Similarly, e-trust and perceived privacy have a strong positive effect on e-loyalty, although perceived security has no effect. Moreover, e-trust could moderate the impact of perceived privacy on e-loyalty, but not the impact of perceived security on e-loyalty. Meanwhile, consumer innovation could not regulate the link between e-trust and e-loyalty. The findings have implications for establishing the concept of e-trust and customer innovativeness in the e-loyalty model.

Keywords: Privacy, Security, e-Trust, e-Loyalty, Consumer Innovativeness


Kata Kunci: Privasi, Keamanan, e-Kepercayaan, e-Loyalitas, Keinovatifan konsumen
INTRODUCTION

The Covid-19 pandemic has altered the way in which people conduct day-to-day activities. By implementing a variety of policies that restrict community activities, the government seeks to prevent and limit the spread of the virus. This effort has resulted in changes in many aspects of people's lives, including business, education, social, and so forth. Humans attempt to find solutions in order to carry out their daily activities in novel ways. The Video Conference application is one such method of communication.

The use of video conferencing is one solution during a pandemic (Aina & Nzegwu, 2020). Online meeting applications are increasing in use every week, whereas, in March 2020, there was a very significant 183 percent increase in the Zoom application (Evandio, 2020). The use of this application also has risks, especially related to privacy and security (Kagan et al., 2020). Furthermore, these problems range from unencrypted communication for unpaid users to malware vulnerabilities, allowing uninvited people to enter video conference meetings by guessing passwords, and stealing user data (Kagan et al., 2020). This problem will have an impact on low customer loyalty and a decline in company performance.

Several studies discuss E-loyalty as the commitment of customers to consistently revisiting the site and shopping without switching to other sites (Chou et al., 2015; Hou et al., 2020; Pham et al., 2020; Zhu et al., 2016; Rayi Retno Dwi Asih & Pratomo, 2018; (Haneen Hasan et al., 2020)). E-loyalty is created from e-trust (Sharma & Lijuan, 2015). E-trust is a customer's belief in their hopes for an online business (Li et al., 2015). Not only does e-trust have an impact on e-loyalty but also privacy and security (Liljander et al., 2015). If customers feel their privacy is safe and secure, they are comfortable interacting in the digital world.

Another interesting thing is the consumer innovativeness. Consumer innovativeness is used as a predictor variable in the purchase intention model (Tjokrosaputro & Cokki, 2020; Al-Jundi et al., 2019). In the loyalty model, consumer innovation becomes a moderator of the relationship between service innovation and consumer loyalty (Roziana & Sari, 2018). Consumer innovativeness is related to someone's trust and loyalty (Menidjel et al., 2017; Lin, 2010). This element is still slightly used as a moderating variable in e-trust and e-loyalty relationships.
The role of consumer innovation is unique and there are still few studies in the e-loyalty model, especially as a moderator variable. Based on the phenomena and gaps in previous research, this study aims to examine the effect of perceived privacy and perceived security on e-trust and e-loyalty. Besides, it also examines the mediating role of e-trust in this relationship and to examine the moderating role of consumer innovativeness variables in e-trust and e-loyalty relationships.

LITERATURE REVIEW

Perceived Privacy and Perceived Security

For consumers to interact in the digital world, perceived privacy and perceived security are crucial. Individual perception is the capacity to regulate third-party access to information in market transactions or to share information privately (Goodwin, 1991). E-Trust appears to have as antecedents perceived privacy and perceived security in the digital world (Shukla, 2014; Liljander et al., 2015; Chou et al., 2015; Aslam et al., 2019). If consumers believe that their privacy is securely protected, they will feel at ease when using digital media. Elements of privacy and security can also increase e-loyalty (Kamilullah, 2017). Moreover, perceived privacy and perceived security have a positive relationship with e-loyalty (Cui et al., 2018). According to Fahmi (2018), preserving privacy can increase consumer intent to reuse and online media user loyalty.

Several indicators of perceived privacy include: (1) the company informs consumers about the information needed; (2) an explanation of the use of information; (3) a mechanism/policy to review and change inappropriate information; (4) consumers believe the company retains their personal information; and (5) consumers believe the company does not release their personal information (Goodwin, 1991). Meanwhile, there are five indicators for perceived security: (1) consumers believe the company implements security measures to protect users; (2) the company ensures protected transaction information; (3) the company has a secure payment mechanism; (4) the company has superior capabilities for dealing with hijackings; and (5) the company safeguards transactions with integrated security (Renata Mekovec & Zeljko, 2012).
E-Trust

E-trust is the degree to which consumers have confidence in online business transactions. Considered to be the most important aspect of a digital company's success, trust is widely regarded as the most important aspect of digital (Sharma & Lijuan, 2015). Trust is the psychological state of being willing to sustain harm based on the anticipation of the intentions or actions of others (Rousseau et al., 1998). Several studies have determined that e-trust precedes e-loyalty (Saini & Kumar, 2015; Li et al., 2015; Zhu et al., 2016; Saini & Singh, 2020; Ibrahim, Fitria, Shabri, 2022). In the context of e-loyalty, e-trust can serve as a moderating factor that influences e-loyalty (Kassim & Abdullah, 2010; Nisfullah & Bachri, 2020).

E-trust indicators include: (1) consumer confidence in the honesty and accuracy of the company in providing information; (2) consumer confidence in company errors; (3) consumer confidence that the company provides mutually beneficial recommendations; and (4) consumer confidence that the company does not harm users (Aslam et al., 2019; Chou et al., 2015; Li et al., 2015).

E-Loyalty

Loyalty is defined as repeated purchasing behavior over a set period of time motivated by a favorable attitude toward the subject (Keller, 1993). E-loyalty is defined as obedience and consistent behavior toward a subject or object via electronic means (Rayi Retno, Dwi Asih & Pratomo, 2018; Ibrahim & Kamri, 2016). E-loyalty is a long-term commitment to repurchase specific products or services from the same company on a regular basis (Bachri, 2017; Utami, 2015). According to Al-Dweeri et al. (2017), there are two types of loyalty: (1) behavioral loyalty, which is the level of customer commitment to the brand and can change if the service provider changes its marketing strategy, and (2) attitude loyalty, which is considered a positive attitude and is related to repurchasing behavior. Loyalty variables can improve a service company's performance (Bachri, 2018; Roslina et al., 2018).

According to Li et al. (2015), the indicators of e-loyalty are as follows: (1) consumers always visit certain applications to make transactions, (2) consumers intend to continue transacting on certain media, and (3) consumers frequently recommend certain media to others. Chou et al. (2015) added indicators of (1) consumer willingness not to switch to other media and (2)
products or services offered by companies in accordance with consumer expectations.

**Consumer Innovativeness**

The main topic that has received special attention from researchers is consumer innovativeness (Bartels & Reinders, 2011; Hur et al., 2012). This variable denotes how consumers react to new products associated with innovation (Zhang & Su, 2011; Fitri et al., 2018). Sahin and Gelmez (2020) state that the success of an innovation can only be achieved by accurately identifying its potential consumers and their needs. According to Midgley and Dowling (1978), there are two types of individual innovation: (1) innate innovativeness (related to personality traits) and (2) actualized innovativeness (engaging in innovative behavior). Personal innovation is a personality trait that expresses an individual's natural proclivity for innovation.

Consumer innovativeness has several dimensions and measurement indicators, including (1) social, which refers to the desire to show innovative products to others, (2) functional, which refers to the ease of use of products, (3) hedonic, which refers to the joy of using innovative products, and (4) cognitive, which refers to thoughts about innovative products (Vandecasteele & Geuens, 2010; Dimitha, Ibrahim, & Ahmadsyah, 2021).

**Hypotheses and Proposed Model**

This study investigates the following eight hypotheses:

- \( H_1 \): Perceived privacy has a positive effect on e-trust.
- \( H_2 \): Perceived security has a positive effect on e-trust.
- \( H_3 \): Perceived privacy has a positive effect on e-loyalty.
- \( H_4 \): Perceived security has a positive effect on e-loyalty.
- \( H_5 \): E-trust has a positive effect on e-loyalty.
- \( H_6 \): Perceived privacy has a positive effect on e-loyalty through e-trust.
- \( H_7 \): Perceived security has a positive effect on e-loyalty through e-trust.
- \( H_8 \): E-trust has an effect on e-loyalty moderated by innovativeness of Muslim lecturers.
The model of hypotheses tests is presenting in Figure 1.

Figure 1. Research Framework

Note:

→ : Direct effect

--- → : Indirect effect

**METHODOLOGY**

This study examined the influence of perceived privacy and perceived security on e-trust and e-loyalty among 285 Muslim lecturers who utilize video conferencing applications. They were selected using the purposive sampling technique, with specific criteria such as being 25-year-old Muslim lecturers and having used video conferencing media more than three times in the last three months. Data was collected using questionnaires that were distributed from August to October 2020.

To measure perceived privacy and perceived security, this study adopted the research of Chou et al. (2015) which have five indicators for each variable. For the e-trust measurement, this study adopted five indicators from Li et al. (2015) and Aslam et al. (2019). The e-loyalty variable is measured using four indicators that adopted from Li et al. (2015) and Chou et al. (2015). Meanwhile, to measure consumer innovativeness, it utilized indicators by Vandecasteele & Geuens (2010), which contains four indicators. It employed Likert scales with a range from 1 (Strongly disagree) to 5 (Strongly agree). The hypothesis
testing were conducted with Structural Equation Modeling (SEM) in AMOS. Prior to that, the validity and reliability tests were performed.

RESULT AND DISCUSSION

Demography

From a total distribution of 285 samples, only 250 questionnaires were returned, which corresponds to a response rate of 87.7 percent. Male respondents dominated gender characteristics with 55.6 percent, while female respondents had 44.4 percent. From the perspective of marital status, 47.2% of respondents were married, 45.2% were unmarried, and 7.6% were other. Compared to other age groups, those between 31 and 40 years of age were the most prevalent. For more details, it appears in the following table.

Table 1. Respondent Demographics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>139</td>
<td>55.6</td>
</tr>
<tr>
<td>Women</td>
<td>111</td>
<td>44.4</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>118</td>
<td>47.2</td>
</tr>
<tr>
<td>Single</td>
<td>113</td>
<td>45.2</td>
</tr>
<tr>
<td>Others</td>
<td>19</td>
<td>7.6</td>
</tr>
<tr>
<td>Age (years old)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-30</td>
<td>78</td>
<td>31.2</td>
</tr>
<tr>
<td>31-40</td>
<td>93</td>
<td>37.2</td>
</tr>
<tr>
<td>41-50</td>
<td>74</td>
<td>29.6</td>
</tr>
<tr>
<td>More than 50</td>
<td>5</td>
<td>2.0</td>
</tr>
<tr>
<td>Job Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil Servant Lecturers</td>
<td>190</td>
<td>76.0</td>
</tr>
<tr>
<td>Non-Civil Servant Lecturers</td>
<td>60</td>
<td>24.0</td>
</tr>
<tr>
<td>Types of Vicon Media</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoom</td>
<td>56</td>
<td>22.4</td>
</tr>
<tr>
<td>Google Meet</td>
<td>88</td>
<td>35.2</td>
</tr>
<tr>
<td>Skype</td>
<td>50</td>
<td>20.0</td>
</tr>
<tr>
<td>Whatsapp</td>
<td>49</td>
<td>19.6</td>
</tr>
<tr>
<td>Others</td>
<td>7</td>
<td>2.8</td>
</tr>
<tr>
<td>Uses of Vicon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning and Teaching</td>
<td>130</td>
<td>52.0</td>
</tr>
<tr>
<td>Webinar</td>
<td>76</td>
<td>30.4</td>
</tr>
<tr>
<td>Meeting</td>
<td>42</td>
<td>16.8</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>0.8</td>
</tr>
</tbody>
</table>

In addition, based on the status of Muslim lecturers, the proportion of civil servant lecturers surpasses that of non-civil servant lecturers, 76 percent to 24
percent. Google Meet is the most popular type of media utilized by respondents, followed by Zoom with 22.4%. The majority of application users (52%) prefer video conferences to webinars (30%) and meetings for carrying out the learning process (16.8%).

**Normality and Outlier Tests**

The data is normally distributed, according to the normality test. Skewness has a critical ratio in the range +2.58. Similarly, the critical-ratio of kurtosis is in the +2.58 range. Asymmetry and kurtosis values between -2 and +2 are considered acceptable for proving a normal univariate distribution (George & Mallery, 2010). According to Hair et al. (2010) and Bryne (2010), data is considered normal if the skewness is between 2 and +2 and the kurtosis is between 7 and +7. There are no extreme data in this study, as determined by outlier analysis. As a result, the authors have a total of 250 samples at their disposal.

**Validity and Reliability Tests**

The consistency or dependability with which a test analyzes a trait is referred to as its reliability. The reliability coefficient demonstrates the dependability of a test. It is denoted by the letter "r," and it is expressed as a number ranging from 0 to 1.00, with r = 0 denoting no dependability and r = 1.00 denoting total dependability. The word validity refers to what the test measures and how successfully that attribute is assessed. All indicators in this research indicated a value greater than 0.334 (df = 33, 0.05). This result implies that all of the indicators are valid. Cronbach's alpha values are 0.820, 0.730, 0.741, 0.735, and 0.818 for perceived privacy, perceived security, e-trust, e-loyalty, and consumer innovativeness, respectively. The findings indicate that all of the constructs used in this study are reliable.

**Measurement Model Tests**

These tests assess the precision of all variables in this study. The Goodness of Fit Index, Adjusted Goodness of Fit Test, Tucker-Lewis Index, Comparative Fit Index, Root Mean Square Error of Approximation, CMIN, and P-Value are among the criteria employed (Hair et al., 2006). All criteria in the study satisfied the requirements, resulting in a fit and parsimony measurement model. More information is provided in the table below.
Table 2. The Goodness of Fit Tests for the Proposed Model

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Cut Off</th>
<th>Results</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>-</td>
<td>96.454</td>
<td>Good</td>
</tr>
<tr>
<td>The Degree of Freedom</td>
<td>-</td>
<td>77</td>
<td>Good</td>
</tr>
<tr>
<td>The Goodness of Fit Index (GFI)</td>
<td>≥ 0.90</td>
<td>0.966</td>
<td>Good</td>
</tr>
<tr>
<td>Adjusted Goodness of Fit Index (AGFI)</td>
<td>≥ 0.90</td>
<td>0.940</td>
<td>Good</td>
</tr>
<tr>
<td>Tucker Lewis Index (TLI)</td>
<td>≥ 0.95</td>
<td>0.989</td>
<td>Good</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>≥ 0.95</td>
<td>0.993</td>
<td>Good</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>≤ 0.08</td>
<td>0.028</td>
<td>Good</td>
</tr>
<tr>
<td>CMIN</td>
<td>≤ 2.00</td>
<td>1.253</td>
<td>Good</td>
</tr>
<tr>
<td>P-Value</td>
<td>≥ 0.05</td>
<td>0.066</td>
<td>Good</td>
</tr>
</tbody>
</table>

Thus, all variables are described in the following diagram.

![Diagram of relationships between perceived privacy, innovativeness of Muslim lectures, e-trust, and e-loyalty](image)

Figure 2. Estimation of Relationships

Note: ***Prob. <0.01; **Prob. <0.05; *Prob. <0.10

Discussions

The first hypothesis (H₁) states that perceived privacy has a significant effect on the e-trust of Muslim lectures in using video conferencing applications. It means that H₁ can be accepted with the C.R. value (6.421) > tα/2 (1.96) or P-value (0.000***)< Sig. α (0.001). This study supports the findings of Liljander et al. (2015), Widodo & Susanto (2018), and Kinasih & Albari (2012), who
found that e-trust may be generated by a person's feeling of privacy when utilizing online media. Perceived privacy is a key factor in digital activity. The greater the user's privacy is safeguarded, the more confident the user is in the media they utilize. As a result, the firm providing video conferencing applications assures that consumer personal data is correctly and confidentially stored.

The second hypothesis (H₂) indicates that perceived security has a substantial influence on the e-trust of Muslim lecturers in utilizing video conferencing technologies. It indicates that H₂ can be accepted with a C.R. (3.299) > tα/2 (1.96) or P-value (0.000***)< Sig. α (0.001). This study is consistent with the findings of Shukla (2014) and Tirtana & Sari (2014), who discovered that e-trust may be generated from a person's perception of security while utilizing video conferencing. Security is a key element in building user trust, and various research demonstrate that security perceptions may be an antecedent variable or driver of online company performance. The safety variable can be an essential factor in building trust.

The third hypothesis (H₃) asserts that perceived privacy has a substantial impact on the e-loyalty of Muslim lecturers who use video conferencing programs. C.R. (5.953) > tα/2 (1.96) or P-value (0.000***)< Sig. α (0.001), indicating that H₃ is acceptable. This study is consistent with the findings of Fahmi (2018) and Kamilullah (2017), which assert that consumers would stay loyal if their privacy is protected. Several prior research have demonstrated a favorable association between a sense of privacy and product loyalty. Privacy can encourage usage intentions and contribute to customer loyalty. Consequently, this characteristic becomes a crucial antecedent for building consumer loyalty.

The fourth hypothesis (H₄) asserts that perceived security has a significant effect on the e-loyalty of Muslim lecturers who use video conferencing software. Given that C.R. (0.978) < tα/2 (1.96) or P-value (0.328) > Sig. α (0.10), it is evident that the null hypothesis (H₄) cannot be accepted. This result indicates that consumers are uncertain and anxious about whether or not the use of media would harm online businesses. Regarding the development of customer-friendly processes and methods, the organization must exercise extreme caution regarding this aspect. This study contradicts the findings of Kassim and Abdullah (2010), who discovered that consumers' feelings of perceived security can motivate them to share positive stories about a company or its products. As a result, they are uncertain whether or not to recommend it
to others. This indicates that consumers’ perceptions of product safety may affect their brand loyalty.

The fifth hypothesis (H₅) states that e-trust influences e-loyalty positively among Muslim lecturers who use video conferencing applications. The test yielded a C.R. (3.327) > tα/2 (1.96) or P-value (0.000***) < Sig. α (0.001), indicating that H₅ can be accepted. In accordance with the findings of Zhu et al. (2016), Saini & Kumar (2015), and Bachri et al. (2019), that the e-trust variable has a statistically significant and positive effect on e-loyalty. When consumers have a strong commitment to a particular company or product, loyalty can increase. Meanwhile, a profound sense of consumer trust can foster a strong sense of commitment.

The sixth hypothesis (H₆) proposes that perceived privacy influences e-loyalty via e-trust. Path-a has a value of β = 0.417 with a significance level of 0.000. Path-b has a value of β = 0.258 with a significance level of 0.000. Path-c has a value of β = 0.405 with a significance level of 0.000, and Path-c' has a value of β = 0.107 with a significance level of 0.013. This indicates that H₆ is accepted. This result suggests that perceived privacy influences e-loyalty via e-trust, and that e-trust can act as a mediator between perceived privacy and e-loyalty levels.

The seventh hypothesis (H₇) suggests that perceived security influences e-loyalty via e-trust. The path-a has a value of β = 0.194 with a significance level of 0.328. Path-b has a value of β = 0.258 with a significance level of 0.000. Path-c has a value of β = 0.405 with a significance level of 0.000, and Path-c has a value of 0.059 with a significance level of 0.564. It means that H₇ is unacceptable. Thus, perceived security influences e-loyalty via e-trust, and e-trust cannot be used as a mediator between perceived security and e-loyalty due to the high level of consumer knowledge and skill regarding the use of video conferencing. Numerous astute consumers have concluded that the utilized applications have a number of shortcomings.

The eighth hypothesis (H₈) states the consumer innovativeness moderates the effect of e-trust on e-loyalty of Muslim lecturers in using video conferencing applications. The value of C.R. (-7.373) < tα/2 (1.96) or P-value (0.000***) < Sig. α (0.001), which means that H₈ cannot be accepted. Consumer innovativeness can weaken the effect of e-trust on e-loyalty. The level of consumer trust has a direct influence on e-loyalty. Innovative consumer
variables have no direct effect on e-trust and e-loyalty. Innovative consumers understand deeply about video conferencing applications and know the weaknesses of these applications that reduce the level of trust or raise doubts about these systems and applications.

CONCLUSION

This study investigated the relationship between the perceived privacy, security, e-trust, and e-loyalty of Muslim lecturers using video conferencing applications. This study confirms that perceived privacy has a direct effect on e-loyalty, whereas perceived security has no direct effect on e-loyalty, by using e-trust as a mediating variable. Similarly, for e-trust, perceived privacy and perceived security have a positive and substantial effect. E-trust influences e-loyalty in a positive and significant way. The relationship between e-trust and e-loyalty cannot be moderated, however, by consumer innovativeness. We argue that consumers have a high level of innovation and an in-depth understanding of video conferencing, as well as greater expectations for the products that are offered.

This research emphasizes the significance of understanding e-trust and e-loyalty. Loyal customers not only experience a sense of comfort while using the product, but they also engage in promotional activities and suggest video conferencing applications to other people. It is imperative for businesses to be able to improve both the functionality and general quality of their wares in order to live up to the standards set by their target audiences.

This study has a number of limitations, including the small sample size, which is restricted to Muslim lecturers only. Further research can expand samples from all circles that frequently use video conferencing in their work. This study only employs five variables: perceived privacy, perceived security, e-trust, e-loyalty, and consumer innovativeness. Therefore, future researchers should consider other variables related to information technology updates.

REFERENCES


Al-Dweeri, R. M., Obeidat, Z. M., Al-dwiry, M. A., Alshurideh, M. T., &


