

***Syariah*-based Mobile-payment Super Apps behavioral loyalty in the Muslim population context: The Role of Religiosity**

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ABSTRACT

This study aims to analyze the relationship between Muslim-customer religiosity and their behavioral loyalties in using *syariah*-based mobile-payment super apps. This study reveals a significant and positive impact of religiosity on trust, which subsequently affects continuance intention and customer advocacy. The result also reveals the indirect positive relationship between religiosity and continuance intention through the mediating effect of trust. This study offers a new perspective for marketers to predict and develop loyal customers within the *syariah*-based mobile-payment super apps industry in the Muslim population context.

Keywords: Continuance intention, Mobile-payment Super Apps, Religiosity, Customer-advocacy, Trust

1. Introduction

1.1 Research background

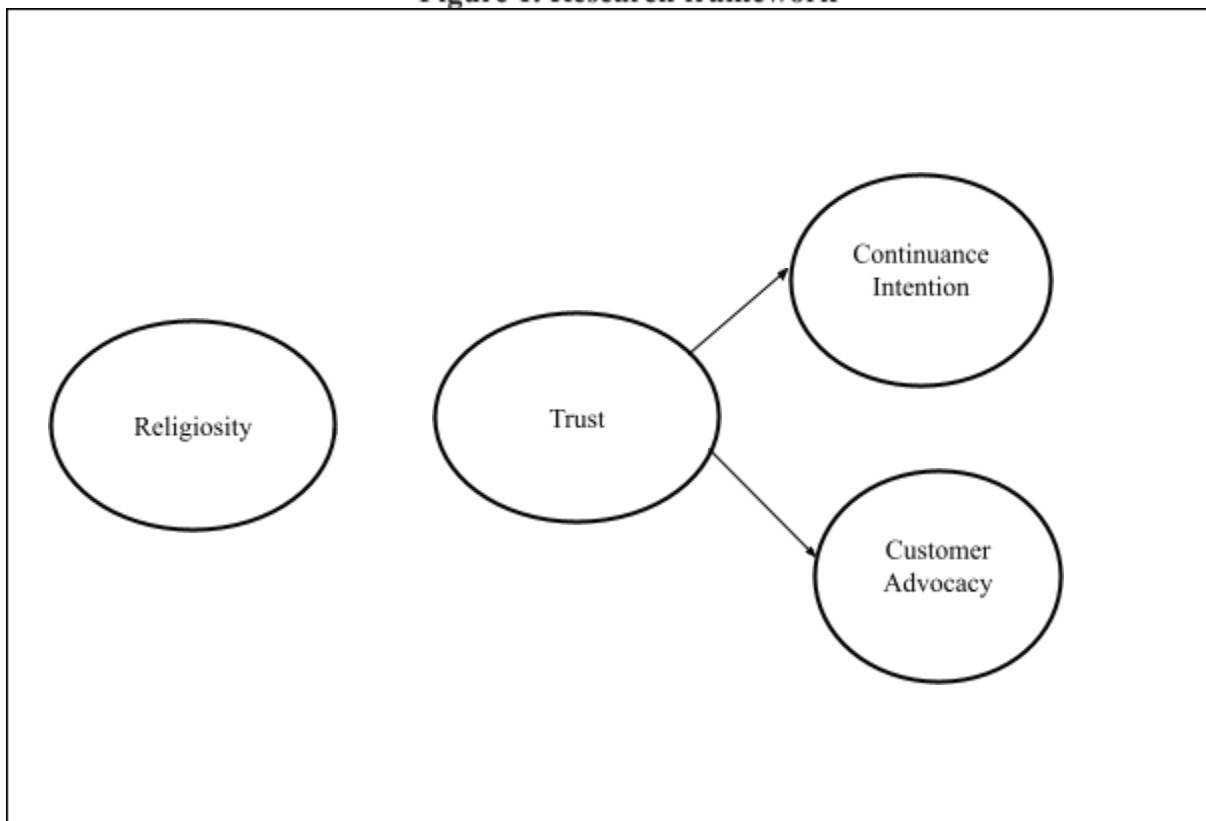
The emergence of super application (super apps) has garnered significant scholarly interest across various academic fields (Zhu et al., 2023). Particularly, the need and growth of super apps in mobile payment usage is now inevitable. As of 2019, mobile payment users have reached nearly 950 million worldwide, and expected to be soaring up to 1.31 billion users in 2023 (Clement, 2019). In Asia market region, Southeast Asia market is one of the biggest markets for this kind of digital financial service beside China and India, and Indonesia is largest potential market due to its huge population (de Sartiges et al., 2020). According to the report by Central Bank of Indonesia (2020), the transaction volume of digital payment in Indonesia was more than 380 million, and the nominal has reached more than 145 trillion rupiah. Despite of its increasing in popularity in Indonesia, however, the level of users' loyalty toward the usage of mobile payment is still relatively low (de Sartiges et al., 2020). They tend to jump from one digital payment service to another easily due to the competition in discounts and cash refunds among the providers of the digital payment. As a most populous-Muslim country in the world, the segment for Muslim consumer in Indonesia plays a crucial role in all industry sector, including

mobile payment sector. This condition leads to the initiation of *syariah based e-payment* which now has been available in several mobile payment platform. Therefore, having a deep understanding about Muslim consumers, including their religiosity magnitude would be necessary for the manager to create a proper segmentation strategy within the population. The role of religiosity plays a pivotal role within the study of consumer behavior. Many researchers have examined several impacts of religiosity toward many types of behaviors such as behavioral consumption. (Sood and Nasu, 1995; Fontaine et al., 2005; Mokhlis, 2006; Choi, 2010). Nevertheless, there is a limited amount of research available regarding the correlation between religion and behavioral loyalty in the specific setting of using mobile-payment super applications.

1.2. Research objectives

This study seeks to examine the role of religiosity toward continuance intention and customer advocacy. In addition, this study also provides a mediating analysis of trust on the indirect relationship between religiosity and continuance intention, as well as customer advocacy. The research framework of this study is presented in Figure 1.

Figure 1. Research framework



2. Literature Review

2.1 Syariah-based Mobile payment Super Apps

Mobile-payment super apps refer to a cashless transaction representing a technical innovation of traditional payment. A mobile device is used to initiate, authorize, and confirm an exchange of financial value in return for goods and services (Au and Kauffman, 2008; Kim et al., 2010). Unlike conventional mobile payment apps, Mobile payment super apps can do more than just an e-wallet. This kind of apps can be linked to multiple types of services (Ye, 2023).

2.2. Loyalty

According to Oliver (1999), loyalty can be defined as a deeply held commitment to continue using preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing. Apart from that, customer advocacy can be regarded as a form of consumer loyalty behavior (Anderson, 1998). Customer advocacy refers to a type of relational behavior between consumers and a particular product. Consumers recommend a product to others and protect this brand from external attacks (Keller, 2007; Keylock and Faulds, 2012; Melancon et al., 2011). This study adopts the form of behavioral loyalties, which are represented in continuance intention and customer advocacy.

2.3. Religiosity

Religiosity refers to a person's devotion to the ritual and belief aspects of their religion (Johnson, 2001). Numerous researchers are now interested in the study of religiosity at the individual level. Within the consumer context, the issue of personal religiosity and its relationship to consumer behavior became more pressing (Suparno, 2020).

2.4. Religiosity, trust, and behavioral loyalty

According to a study conducted by Berggren and Bjørnskov (2011), those who adhere to religious beliefs are anticipated to exhibit higher levels of trust. Previous studies conducted in disciplines other than marketing have provided evidence supporting a favorable association between religiosity and individuals' trust (Anderson et al., 2010; Bègue 2002; Tan and Vogel 2008). For example, a study conducted by Tan and Vogel (2008) revealed that individuals who identified as religious exhibited higher levels of trust towards others in the context of an economic game. In the realm of marketing literature, Minton (2018) provided empirical evidence supporting a favorable correlation between religion and consumer trust. Moreover, prior research has indicated that individuals who exhibit a higher level of religiosity are more likely to display loyalty and engage in less instances of switching behavior (Fontaine et al., 2005; Mokhlis, 2006; Saroglou and Dupuis, 2006; Choi, 2010; Tang and Li, 2015). As demonstrated by Choi's (2010) study, individuals who exhibit higher degrees of religiosity tend to display lesser propensities for engaging in product and store switching behavior, in comparison to individuals with lower levels of religiosity. On the contrary, a previous study conducted by Shao et al. (2019) revealed that there exists a positive correlation between trust and continuing intention. According to McKnight et al. (2002), the enhancement of customers' intention to continue using a mobile payment system is contingent upon their perception of its trustworthiness in facilitating transactions. Furthermore, it is also found that trust has positive impact on customer advocacy (Afridi and Khatak, 2015) Therefore, this study hypothesizes as follow.

- H1. Religiosity positively influences trust
- H2. Trust positively influences continuance intention.
- H3. Trust positively influences customer advocacy.

- H4. Trust mediates the relationship between religiosity and continuance intention.
H5. Trust mediates the relationship between religiosity and customer advocacy.

3. Research Methodology

3.1 Sample and data collection

The data for this study was collected from Indonesian mobile payment users, who have used the mobile payment for at least three months. An online questionnaire survey was conducted between June 1 and July 5, 2020. The data was screened with a validation process by reviewing at data completeness and presence of patterns among the individual responses (e.g., clear patterns and missing data) resulted in 309 valid samples out of 320 returned samples. The majority of the respondents were female (66.9%), and 33.1% were male. Most of the respondents lived in Java (70.4%), followed by Sumatera (18.5%), and Kalimantan (11.1%). Besides, 58.8% of the respondents were between the ages of 18 and 24, 31.9% were between the ages of 25 and 34, 7.0% were between the ages of 35 and 44, and 2.4% were above the age of 45. Of the respondents, 56.1% had a college degree. In regards to mobile payment usage, 29.3% of the respondents have used the mobile payment for under one year, 42.7% for between one and three years, and 28.3% for more than three years.

3.2 Measurements

This study employed measurement items from several previous studies. The items for measuring religiosity were derived from Abd Rahman et al., (2015). The scale for measuring continuance intention was adapted from Xia and Kukar-Kinney (2014). The scale for customer advocacy was adapted from Melancon et al. (2011), the scale for trust adapted from Huang et al. (2014). All items were measured by a seven-point Likert scale anchored between 1 (“strongly disagree”) and 7 (“strongly agree”). The detail of the items can be shown in Table 1.

Table 1. Construct measurements

Construct items and sources
<p>Religiosity (Abd Rahman et al., 2015)</p> <ol style="list-style-type: none"> 1. I enjoy spending time with others of my religious affiliation. 2. I happily and willingly pay my zakat (divine donation/charity) when I am asked todo it. 3. I often participate in religious talk at a mosque. 4. I often watch religious programs on TV and or other media such as YouTube.
<p>Trust (Huang et al., 2014)</p> <ol style="list-style-type: none"> 1. The <i>syariah</i>-base mobile payment super apps is competent and effective in handling my transactions 2. I believe that the <i>syariah</i>-based mobile payment super apps act in my best interest in its <i>halal</i> aspect 3. I believe that the <i>syariah</i>-based mobile payment super apps can be trusted at all times to protect my data privacy
<p>Continuance intention (Xia and Kukar-Kinney, 2014)</p> <ol style="list-style-type: none"> 1. I intend to continue to do transaction using the <i>syariah</i>-based mobile payment super apps I will do more

transaction using the *syariah-based* mobile payment super apps

Customer Advocacy (Melancon et al., 2011)

1. I try to get my friends and family to utilize the *syariah-based* mobile payment super apps
2. I seldom miss an opportunity to tell others good things about this the *syariah-based* mobile payment super apps
3. I would defend this mobile payment if I heard someone speaking poorly about it.

3.3. Common method variance

To avoid and reduce the common method variance (CMV) problem, we adopted prevention and post-detection procedures. The measurement items within the questionnaire were randomly arranged. Respondents completed the survey anonymously, and the labels for the constructs were obscured to reduce respondents' concerns (Podsakoff et al., 2003). To detect the CMV problem for post-detection, this adopted Harman's single-factor test (Harman, 1967). The first factor explained 26.02 % of the variance, which is less than 50%. In addition, this study performed a common latent factor (CLF) to analyze the explained variance of CMV, and the factor loading of CLF was 0.41, which indicated a 16.81% (by squaring the factor loading of CLF) explained the variance of CMV. Since the explained variance of CMV from CLF was only 16.81%, it indicates no serious CMV problem.

4. Result

4.1 Measurement model

This study employed Structural Equation Modeling (SEM) to analyze the related constructs, in which it applied the two-stage approach (Anderson & Gerbing, 1988). First, this study utilizes the AMOS software with maximum likelihood estimation to conduct the measurement model, which tests the reliabilities and validities of the research constructs with confirmatory factor analysis (CFA). Then, the structural model is used to test the strength and direction of the proposed relationships among research constructs. The first step is performing a measurement model by using confirmatory factor analysis, and the second step involves testing a series of structural models, including the hypothesized model. The result of the measurement model displayed a fit model (Anderson and Gerbing, 1988; Byrne, 2001; Hu and Bentler, 1999; Hulland et al., 1996): $\chi^2 = 109.676$, $df = 66$, $\chi^2/df = 1.662$, goodness-of-fit index (GFI) = 0.962, comparative fit index (CFI) = 0.982 and root mean square error of approximation (RMSEA) = 0.042. In addition, the result of factor loading of each item within the model is above 0.7, and the Cronbach alpha value of all construct is greater than 0.85, and the value average of variance extracted (AVE) of each construct is above 0.7; hence, convergent validity is supported (Fornell and Larcker, 1981).

4.2 Structural model

The result showed that the goodness of fit for the proposed model was fit (Baumgartner & Homburg, 1996), $\chi^2 = 88,609$ $df = 38$, $\chi^2/df = 2.332$, GFI = 0.953, IFI = 0.960, TLI = 0.942, CFI = 0.960, and RMSEA = 0.066. The results are shown in Figure 2 and Table 2. Religiosity has a significant and positive effect on trust ($\beta = 0.264$, $p < 0.01$), which supports H1. Furthermore, trust

is also found to have a positive and significant effect on continuance intention ($\beta = 0.385, p < 0.05$) and customer advocacy ($\beta = 0.397, p < 0.05$), supporting H2 and H2.

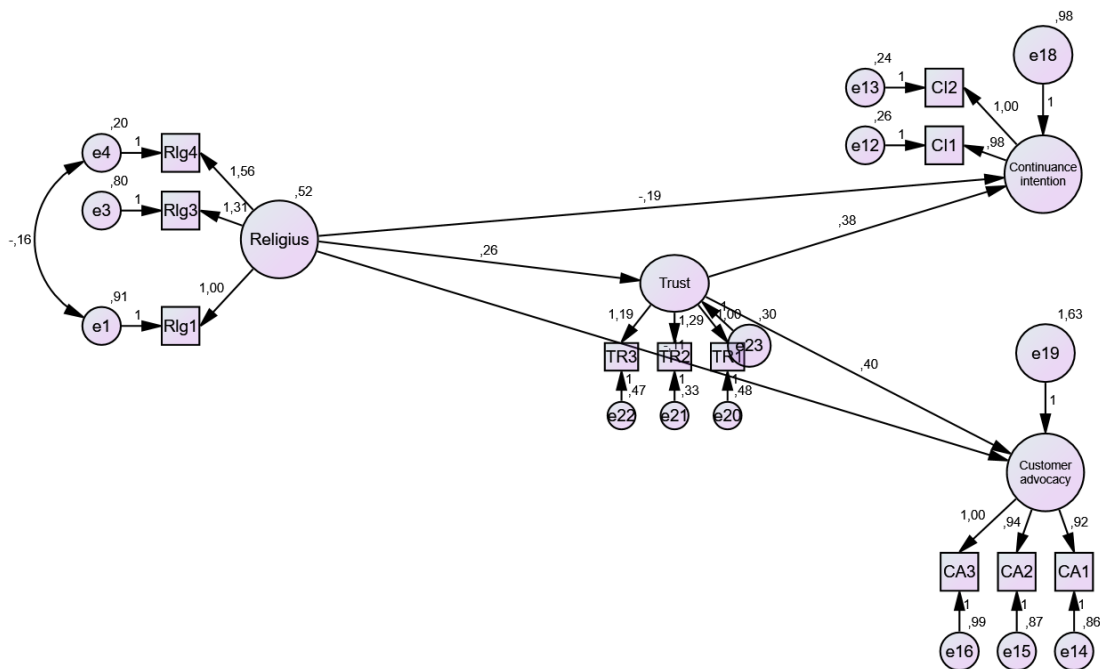
Table 2. Results of the proposed model

Hypothesis relationship			Path coefficients	Hypotheses	Test results
Religiosity	□	Trust	0.264**	H1	Supported
Trust	□	Continuance Intention	0.385**	H2	Supported
Trust	□	Customer Advocacy	0.397**	H3	Supported

Fit index: $\chi^2 = 88,609$ $df = 38$, $\chi^2/df = 2.332$, $GFI = 0.953$, $IFI = 0.960$, $TLI = 0.942$, $CFI = 0.960$, and $RMSEA = 0.066$

Note: * $p < 0.05$; ** $p < 0.01$

Figure 2. Structural equation model result



4.3 *The mediating role of trust*

This study performed bootstrapping method with bias-corrected confidence intervals by using PROCESS software, in which model 4 is chosen to examine the mediating effect (Hayes, 2013). The bootstrapping analysis shows that the indirect effect of religiosity on continuance intention is significantly mediated by trust ($\beta = 0.057$, $CI = 0.0157 - 0.1123$); thus, H4 is supported. In contrast, trust does not mediate the indirect effect of religiosity on customer advocacy ($\beta = 0.053$, $CI = -0.0021 - 0.1248$), suggesting H5 is not supported.

5. Discussion

5.1. *Theoretical implications*

This study contributes two major aspects in mobile payment literature. First, it examines the role of religiosity on individual's trust, which subsequently leads to behavioral loyalties. While previous study only focused on the effect of mobile payment characteristics toward trust (Shao et al., 2019). Finally, this study also examines the mediating role of trust on the relationship between religiosity and continuance intention.

5.2 *Managerial implication*

The findings of the study provide several practical implications for managers. First, since religiosity found to be positively influencing individual trust in the context of *syariah-based* mobile payment super apps usage, it is necessary for managers in the industry to put a serious attention and effort in retaining the trust of the religious-consumers' segment in order to retain the loyalty of this segment. The manager should maintain the trust of the consumers of the *syariah-based* mobile payment super apps by keeping several aspects, including its best performance in doing multiple financial transactions, the guarantee that the platform is always *syariah-compliance*, and its ability to protect consumer's data.

6. Conclusion

This study confirms the role of religiosity as an antecedent of trust which subsequently impact the behavioral loyalties (i.e. continuance intention and customer advocacy) of mobile payment users. The finding is consistent with Minton (2018) which asserted that religiosity has a positive impact on trust. However, there are some limitations within this research. First, this research did not incorporate the possibility of age and gender difference within the model. Thus, further study can include these two aspects to further the insight of the demographic understanding. Secondly, this study only examined Muslim population. Further study may compare the difference among different religious affiliation since there was evidence of attitude among different religious affiliations (Faisal et al., 2014).

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