Altruism, reciprocity, and depositors' loyalty: Empirical study of Islamic bank industry

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Abstract - This paper examines the effect of altruism and reciprocity on *mudharabah* depositors' loyalty of Islamic banks, both directly and through the mediation roles of trust and satisfaction. This study analyzed 280 samples of Islamic bank depositors. Using SEM-PLS, this study examined the association between altruism, reciprocity, trust, and satisfaction. The results showed that altruism and reciprocity had a positive and significant effect on the loyalty of *mudharabah* depositors directly and by the mediating roles of trust and satisfaction. Altruism's direct relationship to loyalty was better than reciprocity, and trust mediation was better than satisfaction. This study provides an opportunity for Islamic banks to increase the loyalty of *mudharabah* depositors by improving strategies to encourage depositors' altruism and trust. In terms of altruism, this study recommends Islamic banks to expand the accessibility of *mudharabah* deposit funds for small entrepreneurs. In terms of trust, this study recommends Islamic banks to increase micro-enterprise financing and create attractive profit sharing for depositors. This paper is the first to integrate altruism, reciprocity, trust and satisfaction factors to predict *mudharabah* depositors' loyalty of Islamic banks.

Keywords - Altruism, reciprocity, trust, satisfaction, *mudharabah* depositors' loyalty, Islamic bank

I. INTRODUCTION

Mudharabah deposits play an important role in reviving Islamic banking business [1]. In some countries, these deposits serve the interest of public in an investment savings system based on the principle of profit-sharing. Even though *mudharabah* deposit has developed rapidly and expanded to various parts of Muslim countries, it has not been competitive with the conventional deposit [2]. This condition is further aggravated by the frequency of *mudharabah* depositors migrating to conventional deposits when savings rates increase [3]. The migration suggests that *mudharabah* depositors often only consider reciprocity and ignore altruism embedded in this investment savings system [4]. Without paying attention to this aspect of altruism, *mudharabah* depositors tend to be disloyal. In this context, altruism is not the same as reciprocity because altruism reflects social concern, the spirit of sharing potential, and solutions that can save marginalized people from poverty. Therefore, altruism needs to be present to accompany reciprocity in *mudharabah* deposits. This view has not been well explored in the literature.

Previous research has given very serious attention to the ability of altruism and reciprocity to influence consumer loyalty [5], [6]. Unfortunately, there has been no specific research that examines the relationship between altruism and reciprocity with loyalty towards *mudharabah* deposits of Islamic banks. Besides, there is scarce research that tests trust and satisfaction as a mediator of altruism and reciprocity with loyalty in business entities [5]. Meanwhile, altruism and reciprocity are two factors proved to be very good in connecting various kinds of motivational factors to loyalty [7]. Thus, for Islamic bank managers to be able to improve the performance of *mudharabah* deposits, experts [1] suggest an innovative study of factors that influence the loyalty of *mudharabah* depositors.

To address the research gap, this research integrates the factors of altruism, reciprocity, trust, and satisfaction in testing the change in the loyalty of *mudharabah* depositors. More specifically, this research aims to (1) examine the direct effect of altruism and reciprocity on *mudharabah* depositors' loyalty and (2) observe the role of trust and satisfaction in mediating the influence of altruism and reciprocity on *mudharabah* depositors' loyalty. This research investigates Indonesian Islamic banking for three important reasons. First, the Indonesian Islamic banking office network has expanded widely, but *mudharabah* deposits have not been able to increase the market share of Islamic banking, which is still in the range of 6%. Second, Indonesia's poverty rate is above 9%, unfortunately, *mudharabah* deposits have not optimally contributed to poverty reduction. Third, although Indonesian Muslims make up the majority of the world's Muslim population, most Muslims of this country have not fully supported Islamic bank products, including *mudharabah* deposits. Departing from the weak competitiveness of *mudharabah* deposits, understanding how to encourage loyalty in *mudharabah* depositors is very important for Indonesian Islamic banking today.

II. METHODOLOGY

This research used a quantitative approach because of its ability to reflect the population of Islamic bank depositors and its accuracy in answering statistical hypotheses. This research collected data from *mudharabah* depositors of Indonesian Islamic banks through self-administered questionnaires. We applied convenience sampling in selecting respondents because of difficulties in detecting targeted populations. Moreover, this technique facilitates access to respondents, measurement, and collaboration with respondents. Our questionnaire was distributed to 300 respondents during October-December 2019, in the city of Bandung, and 280 questionnaires were returned to us. The sample obtained exceeded the minimum threshold for multivariate analysis requirements as suggested by Hair *et al.*, [8].

The instrument we used for this research was adapted from the literature on customer altruism, reciprocity, and loyalty. To fit the context of *mudharabah* deposits, we made modifications based on Islamic banking culture. We validated the instrument through a pre-test system. The pre-test activity involved twenty graduate students and two sharia finance and banking experts to test the quality of the questionnaire format, the suitability of the indicators with context, the validity of the language structure, logical consistency, and editorial ease. Table 1 shows a summary of the adapted indicators and their sources. All indicators relating to altruism, reciprocity, trust, satisfaction, and loyalty are measured based on a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree).

This research examines the proposed model using SEM-PLS (structural equation modeling-partial least square). This method was also used to test the construct validity and reliability. SEM-PLS makes it easy for researchers to uncover latent constructs with small and medium samples and to test abnormal data [9]. SEM-PLS is also very effective in testing the path coefficient contained in the structure of the model [8]. To uncover indirect effects, testing of two different path coefficients was carried out by following the recommendations of Sobel [10].

III. RESULTS

This study observed 280 respondents, consisting of students (8.9%), staff (51.8%), managers (17.9%), and entrepreneurs (21.4%).

A. *Measurement Model*

To understand the reliability of the outer model, this research examines convergent validity, discriminant validity, and reliability. Convergent validity estimation aims to determine the correlation of each construct with the latent variables using the loading factor criterion of >.60 and average variance extracted (AVE) >.50 [8]. Table 1 shows that construct relations and latent variables meet the requirements of convergent validity. Then, the reliability test was conducted to determine the consistency of the instrument score in measuring variables with the criteria of Cronbach alpha (CA) >.60 and composite reliability (CR) >.70 [8]. Table 1 shows that the CA and CR estimation results are consistent with the criteria, so the instruments used in this study can be trusted.

TABLE 1
MEASUREMENT OF MODEL INDICATORS

Construct	Loading	CR	CA	AVE
ALT		.920	.888	.702
ALT1	.863			
ALT2	.692			
ALT3	.946			
ALT4	.707			
ALT5	.946			
REC		.857	.801	.549
REC1	.658			
REC2	.789			
REC3	.733			
REC4	.845			
REC5	.664			
TRU		.929	.904	.727
TRU1	.779			
TRU2	.810			
TRU3	.920			
TRU4	.839			
TRU5	.907			
SAT		.916	.884	.688
SAT1	.817			
SAT2	.893			
SAT3	.786			
SAT4	.905			
SAT5	.735			
DEP		.911	.884	.631
DEP1	.781			
DEP2	.822			
DEP3	.751			
DEP4	.777			
DEP5	.853			
DEP6	.781			

TABLE 2
HYPOTHESIS ESTIMATION RESULTS

Path	*B*	SE	*t-Stat*
ALT=>DEP	.237	.120	19.62**
REC=>DEP	.045	.010	4.201**
TRU=>DEP	.535	.013	40.147**
SAT=>DEP	.046	.014	3.122**
ALT=TRU	.396	.013	28.784**
ALT=>SAT	.507	.011	43.327**
REC=>TRU	.117	.011	10.109**
REC=>SAT	.071	.013	5.461**

**Significant at p<.01

Fornell and Larckerl [11] recommends a discriminant validity test to ascertain whether the variables analyzed do not have unidimensional properties with the condition that each square root of AVE exceeds the correlation value between constructs. The estimation of discriminant validity of this study meets these criteria.

B. *Structural Model*

By applying the SmartPLS software, this research conducted a bootstrapping procedure with 5000 repetitions to estimate the structural model. To identify the ability of data in explaining the model, Tenenhause *et al.*, [12] recommend the GoF (Goodness of Fit) test with the criteria of .02 (low), .25 (moderate), and .36 (high). Table 5 shows the GoF value of .469, meaning that the proposed *mudharabah* depositor loyalty model is very suitable for use in sample testing.

The next step is the estimation of the hypothesis through path coefficient analysis as presented in table 6. In the PLS mechanism, the hypothesis is accepted if *t*-stat >1.96, while the positive or no relationship between variables is evaluated according to the value of β [8]. H1 and H2 observed the relationship between altruism and reciprocity with depositor loyalty. Estimation results show altruism (t=19.62, β=.237) and reciprocity (t=4,201, β=.045) are positively and significantly related to depositor loyalty. Thus, H1 and H2 are accepted.

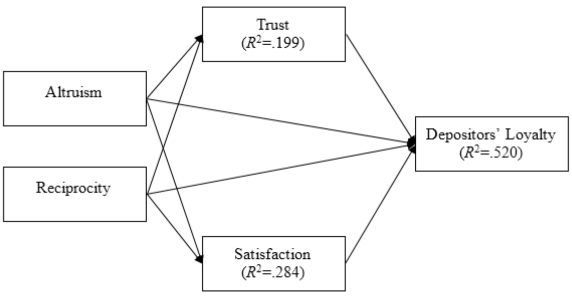

Fig. 1. The estimated model.

C. *Mediation Analysis*

To get a clear understanding of the ability of trust and satisfaction to mediate the relationship between altruism and reciprocity with depositor loyalty, this study conducted a Sobel test with the criterion of z value >1.98 [10]. By utilizing the information in table 6, trust (z=24.484, z=3.277) is found to be very good in mediating the relationship between altruism and reciprocity with depositor loyalty. Satisfaction (z=10.297, z=2.815) is also very capable of bridging the relationship between altruism and reciprocity with depositor loyalty. The result of this z value observation means that both trust and satisfaction factors are very effective in connecting altruism and reciprocity with the loyalty of *mudharabah* depositors. Therefore, H3, H4, H5, and H6 are declared valid.

IV. DISCUSSION

Altruism and reciprocity play an important role in social activities and business communities. This study develops altruism and reciprocity model in the context of Islamic bank *mudharabah* deposits. Estimation results support all hypotheses and at the same time enrich insights on altruism and reciprocity.

This study suggests that altruism is highly capable of directly influencing the loyalty of *mudharabah* depositors. The significant effect of altruism on depositor loyalty suggests that altruism is the prerequisite to encourage customers' interest in and continuous use of *mudharabah* deposits. This finding is in line with the findings of previous research indicating that altruism effectively influences loyal behavior [13]–[15]. Altruism symbolizes prosocial attitudes in that by utilizing *mudharabah* deposits, customers can contribute to the welfare of society. With the encouragement of altruism, Islamic bank customers will increasingly channel their funds to *mudharabah* deposits and recommend these Islamic investment products to other parties. The failure in developing altruism will hinder the progress of *mudharabah* deposits in the future.

This study has observed the relationship of reciprocity and loyalty of *mudharabah* depositors. The results show that reciprocity is very significant in indirectly affecting *mudharabah* depositors' loyalty. This result strengthens the model of relationship between reciprocity and loyalty of previous research [14], [16]. Based on this model, customers who use *mudharabah* deposits are looking forward to an ideal profit-sharing and service feedback commensurate with the transaction value. With guaranteed reciprocity, customers will increasingly actively deposit their money in Islamic banks, have a stronger preference for Islamic deposits, and more diligently invite other parties to also invest in Islamic banks. Therefore, reciprocity becomes a very important component in the development of *mudharabah* deposits.

The ability of trust in mediating the relationship between altruism and reciprocity with *mudharabah* depositor loyalty is revealed in this study. This finding confirms that both altruism and reciprocity are only directly associated with the loyalty of Islamic bank depositors but also through the mediation of trust. The estimation results in this study support the findings of previous research [5], [17], [18]. The research finding makes it clear that altruism and reciprocity both actively influence customer trust. This trust affects the increase in customer behavior's utilization of Islamic bank deposit products on an ongoing basis. This discussion indicates the importance of the trust factor in increasing altruism and reciprocity linked to depositor loyalty.

The hypothesis about the role of satisfaction in mediating the relationship between altruism and reciprocity with *mudharabah* depositors' loyalty is justified in this study. The results of this investigation indicate that trust is not the only factor connecting altruism and reciprocity because there are also other factors such as satisfaction. These results confirm the results of previous research [5], [14], [17]. With the active factors of altruism and reciprocity, a customer is more satisfied with Islamic deposit products and the profit-sharing achieved. The connection does not stop here because this satisfaction stimulates the rise of loyal customer behavior in utilizing Islamic deposit products on an ongoing basis and encourages the customer to promote the products to other parties. On that basis, consistent attention to the satisfaction factor will further streamline the relationship between altruism and reciprocity with the loyalty of *mudharabah* depositors.

V. CONCLUSION

This study extends knowledge about the potential effects of altruism and reciprocity on the loyalty of *mudharabah* depositors of Islamic banks. Predictions of the relationship between altruism and reciprocity with the loyalty of *mudharabah* depositors are enriched by integrating the factors of trust and satisfaction. That is, to increase the loyalty of *mudharabah* depositors, academicians can take advantage of the direct roles of altruism and reciprocity and also the mediating factors of trust and satisfaction. Judged from the direct relationship model, altruism is better than reciprocity because it has a higher β and *t*-stat value. This result implies the importance of increasing the role of altruism in promoting the loyal behavior of *mudharabah* depositors. In the perspective of the mediation model, *the z* score of trust is higher than satisfaction. The score implies that trust is more reliable for enhancing the relationship between altruism and reciprocity with *mudharabah* depositors' loyalty. Thus, altruism and trust can be used as a foundation for advancing the current and future of *mudharabah* deposits of Islamic banks.

From a managerial perspective, this study implies the importance of Islamic banks to advance aspects of altruism and trust to enhance the rate of growth of *mudharabah* deposits. In the aspect of altruism, customers are always actively questioning whether *mudharabah* deposit funds collected in Islamic banks have an impact on the progress of the small business sector and whether the funds affect improved welfare of marginal people. For this reason, Islamic banks need to facilitate the accessibility of *mudharabah* deposit funds for small entrepreneurs and at the same time provide guidance and assistance to these small entrepreneurs so that the funding reaches the target recipients as expected by depositors. Thus, depositors will increase *mudharabah* deposit activities in Islamic banks. Also, trust determines an increase in public loyal behavior towards *mudharabah* deposits. To strengthen the trust of depositors, Islamic banks need to improve the quality of altruism by increasing the performance of financing for the micro and reciprocity business sectors and by giving more attractive profits to depositors. Depositors who feel the positive effects of all these aspects will always utilize *mudharabah* deposits as the best investment channel and encourage other parties to also take advantage of this product.

Despite its academic and managerial implications, this study has limitations. Firstly, the R2 level of *mudharabah* depositors' loyalty is moderate. It means that there are still other factors that need to be involved in estimating depositor loyalty. To be more significant, further research needs to consider other factors that can influence the loyalty of Islamic bank depositors such as reputation, religiosity, norms, service quality, and technological convenience. Secondly, this research was only conducted to Indonesian Islamic bank customers with very specific cultural and economic characteristics. To improve the quality of the findings, further research is recommended to select respondents from several countries and a variety of cultures. Third, the analysis of the role of altruism and reciprocity is only intended to determine the behavior of *mudharabah* deposit users. Further research can estimate the role of altruism and reciprocity factors in other Islamic bank service products such as *wadi'ah* savings products, special Islamic investments, debt insurance (*kafalah*), and Islamic donations payment (Islamic philanthropy).

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