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# Analysis of Social Capital Effect in the Joint Liability Group on the Performance of Sharia Cooperatives in Indonesia

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**Abstract:** This investigation aims to analyze the impact of the joint liability model on the sharia cooperatives' performance in Indonesia. The respondents are several group lending members of sharia cooperatives in Java, the center of sharia cooperatives in Indonesia. This study utilized the purposive sampling method to select samples conducted in April 2021. Data collection was carried out by distributing online and offline questionnaires to several sharia cooperatives utilizing the joint liability model. Data from 98 respondents were further analyzed by PLS-SEM analysis. The results unveiled that joint liability, which was influenced by indicators of trusts, norms, and networks, had a positive and significant effect on sharia cooperatives' performance as measured by members' satisfaction and loyalty. Thus, sharia cooperatives can take advantage of and maintain the joint liability model based on trusts, norms, and networks. The rationale is that the joint liability application has followed cooperative principles: the principle of kinship and cooperation. In addition, such a model has proven to increase the loyalty and satisfaction of sharia cooperative members.

**Keywords:** Social Capital; Joint Liability Model; Members' Satisfaction; Members' Loyalty

**JEL Classification:** B55; L31; M14

## Introduction

In general, the cooperative industry has contributed 4.48% to Indonesia's gross domestic product (GDP) in 2017 (Kemenkopukm, 2021). Although this value is small than other industry sectors, the existence of cooperatives is required to meet the needs of community funds, especially SMEs. The location of sharia cooperatives and many SMEs is in rural areas, making it easier for them to cooperate in terms of capital, compared to more Islamic banking in urban areas. In addition, SMEs have been considered high risk for banks, as they cannot meet the general criteria of credit analysis, especially those related to physical collateral (Darsono et al., 2017). Furthermore, banking is generally known to channel more credit to non-SME sectors. The amount of credit for SMEs during 2013-2018 ranged from 18%-20% of the total credit distributed by national banks.

The importance of the role of sharia cooperatives in developing SME businesses is not supported by good performance. Several problems are still looming over the face of Indonesian sharia cooperatives. Kemenkopukm noted that there are still many cooperatives whose performance is not up to par. They often face some classical problems such as the low ability of the cooperative boards and management in managing their business and the lack of members' participation in developing their cooperatives.

BMT is another agent that can help cooperative, which indulges in SMEs. Therefore, the SMEs' capital can be improved by assessing BMT from its various products (Munir et al., 2021). However, as a business entity obliged to improve the welfare of members, sharia cooperatives require not only money but also social capital. In fact, as a member-owned company, sharia cooperatives require more social capital than companies such as investor-owned companies. It determines the performance of sharia cooperatives, not only the performance of administrators and management but also the participation of cooperative members.

Social capital in cooperatives, consisting of trusts, norms, and networks, is often used as a base to build a joint liability group. Although, from a narrow sense, such a mechanism is more frequently associated with efforts to reduce credit risk for cooperatives, it can be a tool to increase the participation of cooperative members. Social capital becomes the glue for people who join a group. Trusts will make works effective. The role of social capital here is to gain trust to join the joint liability group. Networking in social capital can make it easier to join the joint liability group because, in this case, the network is a relationship between prospective members and members who have joined the group. This built network can eventually become a bridge to join the joint liability group.

In the joint liability mechanism, decision-making is performed in deliberation, then the consequences of the decision results are a shared responsibility. However, it is not easy to implement a joint liability model because some people argue that they are not willing to overcome the obligations of others. One of the reasons is that one is trying to make money, but only to pay for other people's installments. There is no family relationship, but a person must be responsible for his obligations. Supposedly, fellow members of the group have mutual trust, feel one part, and help each other. If these can be applied, the joint liability model will be implemented.

The joint liability model can be an asset safety model. If the group loan installment is completed, bad credit will not occur. If sharia cooperative assets are safe, the cooperative will have the ability to improve its services to its members, both in quality and quantity. Thus, when social capital in the joint liability group increases, the performance of the cooperative can also increase.

The joint liability model has been utilized by sharia cooperatives in Indonesia, especially those engaged in financial services and insurance. Joint liability is defined as the responsibility carried out jointly by all members in a group for all obligations to cooperatives based on a sense of openness and mutual trust between them (Supriyanto,

2011). Each member in a group of joint liability is willing to guarantee each other, either temporarily or permanently, if the member cannot fulfill his obligations for various reasons.

In Indonesia, sharia cooperatives often use such a mechanism to minimize the risk of nonperforming loans (Arifin, 2008; Wahyudi & Rustantia, 2017). SME actors, who mostly are the customers of sharia cooperatives, do not have worthy physical assets used as financing collateral. Through the joint liability model, everyone in the group becomes a guarantor for his peers. Accordingly, it can reduce the occurrence of nonperforming loans because if some members cannot fulfill their liabilities, their group peers will pay for the obligation. In addition, applying the joint liability mechanism can mount the cooperation and sense of openness of sharia cooperative members (Çriana, 2013; Mardliyyah & Ryandono, 2020; Rahayu, 2011).

The term joint liability is not familiar in Islam. However, Islamic law has the term kafala, meaning a guarantee given by an insurer to the third party to fulfill the obligations of the second party or the lenders (Antonio, 2001). Therefore, the implementation of the joint liability model has followed two Islamic teachings: deliberation and cooperation in righteousness (Mardliyyah & Ryandono, 2020).

**Implementing the joint liability model is classified in the kafala bin nafs, where all members have shared responsibilities**

According to Sabiq (1987), kafala must require the presence of kafiil, ashil, makful lahu, and makful bih. Kafiil is a person obliged to meet the demands of makful bih or guarantee object. Kafiil's criteria are mature, reasonable, having authority over his property, and sincere with kafala. Ashil is a person in debt, and Kafiil guarantees his debt. All criteria for Kafiil are not mandatory for Ashil. Meanwhile, makful lahu is the one who gives the debt. The required guarantor must know him. Since humans are not equal in terms of demands, it is meant for ease and discipline. Makful bih is something used as a guarantee; it can be a person, goods, or work.

According to Putnam (1993), social capital is an event that arises from below, coming from several people who form social networks based on trust because of the social contract. Coleman (1988) stated that social capital is the diversity of the different units of the two elements in similarity, which stem from several aspects of social structure and facilitate individual and corporate activities.

According to Riddell (1997), social capital parameters encompass: (1) Trust; Fukuyama (1995) asserted that trust is an attitude of honesty, mutual trust, and trust in each community so that there is a sense of mutual unity and cooperation with others and it contributes to the increase in the value of social capital. (2) Norms; According to Putnam (1993), a norm is formed based on religion, moral guidance, and secular standards in the form of understandings, values, hopes, and goals believed and implemented together with a group of people. (3) Network; Networking on social capital is how the community (between members and administrators or other institutions) can build good internal and

external cooperation. When social networks have been good, it will establish close feelings between members, administrators, and other institutions in working together to achieve goals.

Sharia cooperative is an institution oriented to members, so the main focus on assessing the institution's performance should be on members, not just on financial performance. Social performance is defined as the realization of the social goals of the organization by moving beyond the orientation of transactions to create the welfare of all stakeholders, such as providing essential services to the community, value for members, and being socially responsible (Christen et al., 2004; Karthikeyan, 2013).

Several studies on the measurement of cooperative social performance have been conducted. Dasuki et al., (2016) explained four performance development goals for cooperatives: poverty reduction, existing business growth, job creation, as well as gender equality and women's empowerment.

Dasuki et al. (2016) noted that the use of indicators such as Moody's Social Performance Assessment (SPA) not only upholds investors' commitment to social responsibility but increases financial gain. Further, there is no reputational risk involved when describing the welfare of members, which is not present in other financial institutions.

Measurement of member welfare or improvement of members' quality of life can utilize the Progress out of Poverty Index (PPI). The measurement, which has been used by credit union Keling Kumang (CUKK) since 2011, measures member poverty levels, such as how many heads of families are already above the poverty line and how many of them are still below the poverty line (Munaldus, 2017).

Furthermore, the social performance of a sharia cooperative can be seen from the perspective of members or customers. In this study, the perspective was measured by customer loyalty and customer satisfaction. Members who are satisfied with sharia cooperative services will undoubtedly have a good level of loyalty and satisfaction.

There have been many studies on Islamic cooperatives. However, their scopes are still narrow and limited to the analysis of their financial performance. It encourages researchers to investigate the Indonesian sharia cooperatives, especially those in Java, from a different perspective: their social performance. In particular, this study aims to analyze the impact of joint liability mechanisms on sharia cooperatives' performance in Indonesia.

## **Research Method**

### **Population and Sample**

In answering the research question, the study employed a quantitative approach, a method that examines a specific population or sample level to describe and test

hypotheses (Sugiyono, 2017). The research population is all sharia cooperatives in Indonesia, amounting to 4,046, with the target population being sharia cooperatives operating in Java.

The sample was selected using the purposive sampling method, which requires many things, namely 1) sharia cooperatives are certified cooperatives and get an A rating from the Ministry of SMEs, 2) sharia cooperatives use the joint liability mechanism in lending. Respondents asked for data and information were members of sharia cooperatives who were also members of the joint liability group, who had joined the group for at least one year.

Given the unavailability of data on the number of all members of the joint liability group in Java, the determination of the number of respondents using the Lemeshow formula is as follows:  $n = Z^2 \cdot P(1 - P) / d^2$ , where n is the sample number, Z is the confidence level of 1.96, p represents the maximum estimate of 0.5, and d is the sampling error by 10%. The formula obtained a value of 96 respondents.

#### **Data Collection Technique**

The data were collected through the dissemination of questionnaires. The questionnaire instruments were graded on a 4-scale Likert, which varied from "Strongly Agree" to "Strongly Disagree." This instrument was distributed to respondents through social media using a google form and distributed manually through sharia cooperatives sampled.

#### **Descriptive Analysis**

The data obtained were univariately screened using descriptive analysis to discover the missing values and obtain an idea of the characteristics of respondents. Then, for hypothesis testing using Bootstrapping, the data were analyzed using PLS-SEM analysis with the SmartPLS 3.0 application.

#### **Outer Model Testing**

The outer model is a measurement model used to assess the validity and reliability of an indicator (Hartono & Abdillah, 2014). It tests the construct validity and reliability of each item, indicator, or construct. Construct validity tests include convergence and discriminant tests. An indicator or item is said to be valid if it meets the criteria of convergent validity test with a loading score of  $> 0.7$ , but the interpretation of the loading factor value  $> 0.55$  can also be said to be valid (Dante M. Pirouz) if the value of  $P < 0.1$  and the value of  $AVE > 0.5$ . The discriminant validity test was conducted by comparing the square root value of each construct with the correlation coefficient between constructs. As for the reliability test, the composite reliability value must be  $> 0.7$ , and Cronbach's alpha should be  $> 0.6$ .

### Inner Model Testing

The  $R^2$  value for the inner model was analyzed through the goodness of fit test. The inner model test checked the  $R^2$  value for the dependent variable and the path coefficient value for the independent variable. Significance tests applied T-statistics for each track (Hartono & Abdillah, 2014). A more significant  $R^2$  value indicates a greater variance of changes in the dependent variables, which independent variables can explain in the inner model. The criteria employed in analyzing the path coefficient or T-statistical value of the inner model is that the T-statistical value is greater than the t-table, the t-table value with 10% alpha is 1.65 for the two-tailed test.

### Research Hypothesis

The hypotheses in this study are as follows:

*H<sub>1</sub>: Trust positively and significantly affects the joint liability model.*

*H<sub>2</sub>: Norms have a positive and significant effect on the joint liability model.*

*H<sub>3</sub>: Network has a positive and significant influence on the joint liability model.*

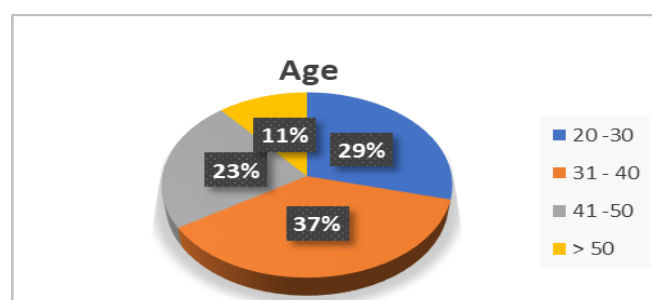
*H<sub>4</sub>: Joint liability model has a positive and significant effect on the performance of sharia cooperatives.*

## Result and Discussion

Respondents in this study were members of sharia cooperatives who have joined the joint liability group for at least one year. Questionnaires were distributed online and offline to speed up data collection time. The results obtained 98 respondents who filled out the questionnaire in full.

### Descriptive Analysis

The collected data were analyzed with descriptive analysis to obtain an overview of respondents. The result is as follows.



**Figure 1** Characteristics of Respondents based on Age

Figure 1 demonstrates four groups of respondents' age, i.e., 20 - 30 years, 31 - 40 years, 41 - 50 years, and more than 50 years. The data indicate that most respondents aged 31 - 40 years, amounting to 36 people or 37%. Furthermore, few respondents were above 50 years old, totaling 11 people or 11%. To sum up, most members of the sharia cooperative/BMT/KJKS/KSPPS joint liability group were 31- 40 years old.

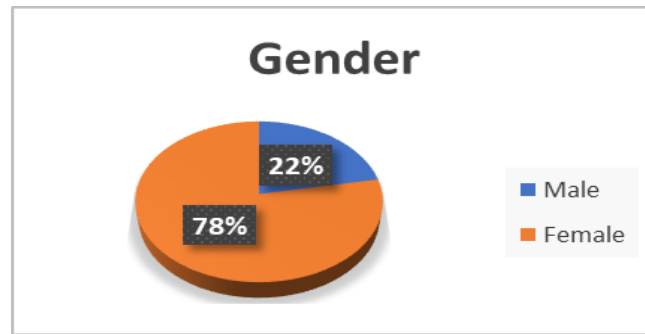


Figure 2 Characteristics of Respondents based on Gender

Figure 2 displays the characteristics of respondent profiles based on gender, where female respondents totaled 76 people or 78%, and male respondents amounted to 22 people or 22%, implying that respondents of the female sex are more dominant than males.

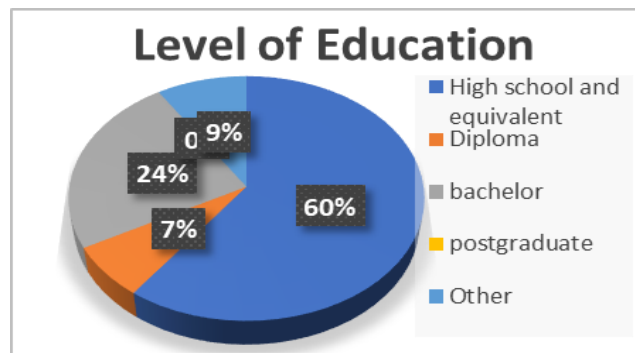
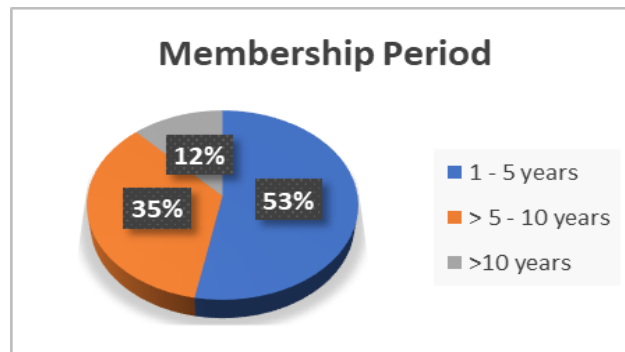


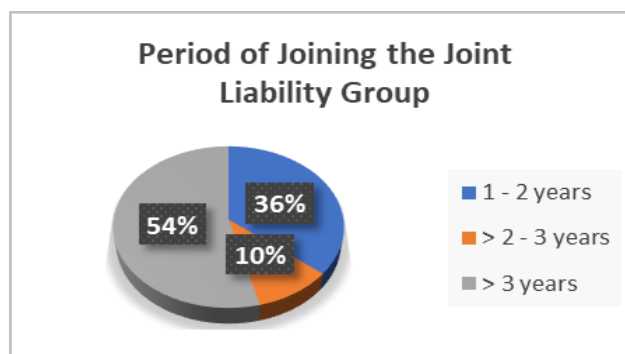
Figure 3 Characteristics of Respondents based on Education Level

Figure 3 exhibits five classifications of respondents' education level: high school and equivalent, Diploma, Bachelor, Postgraduate, and Others. Most respondents had an education level of high school and equivalent, amounting to 59 people or 60%, seven people or 7% had Diploma, those with a Bachelor education level totaled 23 people or 24%, other education levels amounted to nine people or 9%, and there were no respondents with a Postgraduate education level. In short, respondents' education level has been dominated by high school and equivalent.



**Figure 4** Characteristics of Respondents based on Membership Period

In Figure 4, the membership period of respondents joining sharia cooperatives/ BMT / KJKS / KSPPS is divided into three: 1 - 5 years amounting to 52 people or 53%, more than 5 - 10 years amounting to 34 people or 35%, and over ten years totaling 12 people or 12%. The data signify that most respondents had a membership period of 1-5 years in sharia cooperatives.



**Figure 5** Characteristics of Respondents based on the Period of Joining the Joint Liability Group

Figure 5 illustrates the respondents' period of joining the joint liability group divided into three: 1 - 2 years amounting to 35 people or 36%, more than 2 - 3 years amounting to 10 people or 10%, and over three years amounting to 53 or 54%. In other words, most respondents have joined the joint liability group for more than three years.

### Outer Model Testing

The test was conducted using SmartPLS 3.0 software from the calculation results with the PLS algorithm and produced outer models as depicted in Figure 6. The outer model was designed by testing validity and reliability. The validity test consisted of two types: convergent validity and discriminant validity.



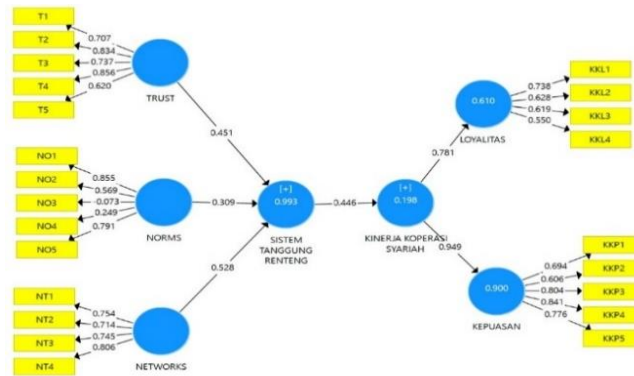


Figure 6 Output Outer Multidimensional Construct Model

In convergent validity, tests were seen in loading factor values and Average Variance Extracted (AVE). Figure 6 displays five Trust indicators, five Norms indicators, four Networks indicators, four Loyalty indicators, and five Satisfaction indicators. For the indicator to be valid, the loading factor must be more than 0.55. Hence, values that do not meet the standard must be issued or eliminated. The researchers issued indicators NO3, NO4, and KKL4, as seen in Figure 7.

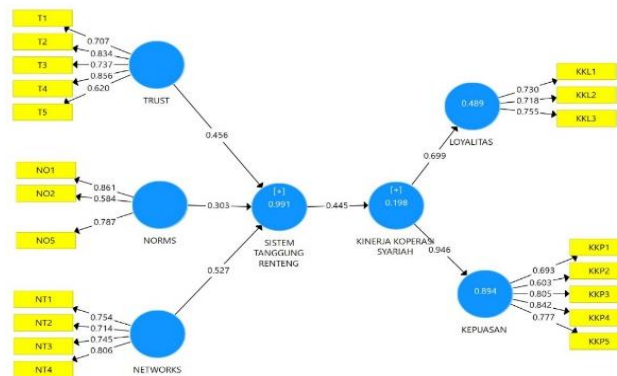


Figure 7 Output Outer Model after Loading Factor Selection

Figure 7 depicts the outer output of the model after selecting the loading factor with a value of more than 0.55. Then, the indicator with a loading factor value of no more than 0.55 was deleted, and the data were reprocessed and produced output as in the image so that the data became valid because the loading factor value was > 0.55.

Table 1 Average Variance Extracted (AVE)

Construct	Average Variance Extracted (AVE)
Trust	0,571
Norms	0,567
Networks	0,571
Loyalty	0,540
Satisfaction	0,561

Convergent validity tests were assessed from average variance extracted (AVE), where the value should be above 0.5. Following Table 1, the AVE value of each variable is more than 0.5. After that, the discriminant test of validity criteria was performed, discovering a square root value of AVE higher than the correlation value between constructs. The outer results are displayed in the following table.

**Table 2** Discriminant Validity

Construct	Satisfaction	Loyalty	Networks	Norms	Trust
Satisfaction	0.749				
Loyalty	0.444	0.735			
Networks	0.392	0.220	0.756		
Norms	0.365	0.140	0.536	0.753	
Trust	0.338	0.118	0.393	0.193	0.756

Table 2 indicates that the square root values of AVE (0.749, 0.735, 0.756, 0.753, and 0.756), where the value is more than each construct or the root value AVE, is more significant than 0.5. In other words, the measurement model is valid since it has met convergent and discriminant validity. The measurement of the construct reliability test was seen from the composite reliability value of the indicator block that measured the construct.

**Table 3** Composite Reliability

Construct	Composite Reliability
Trust	0,868
Norms	0,793
Networks	0,842
Loyalty	0,779
Satisfaction	0,863

The results of composite reliability output in Table 3 demonstrate that all variables have met the reliable criteria. The composite reliability value was above 0.7. In short, the list of overall statement items of variables was reliable to measure each variable.

**Inner Model Testing**

After the data measurement results were valid and reliable, the structural model (inner model) testing was conducted to test the hypothesis by Bootstrapping. The following table describes the structural or inner model evaluation on PLS using an R-square table.

**Table 4** R-square

	R Square	R Square Adjusted
Joint Liability System	0.991	0.991
Sharia Cooperative Performance	0.198	0.189
Satisfaction	0.894	0.893
Loyalty	0.489	0.484

Table 4 illustrates that the R-Square value on the Joint Liability Model variable is 0.991, meaning that 99.1% of joint liability model variables were influenced by social capital as measured by trust, norm, and network variables. Then, 0.9% of joint liability model variables were affected by other variables not measured in the study.

The R-square value on the sharia cooperative performance variable was 0.198, indicating that 19.8% of sharia cooperative performance variables were affected by the joint liability mechanism, and the other 80.2% were influenced by other variables not measured in this study. The performance of sharia cooperatives was measured using the indicator of satisfaction and loyalty seen from the value of R<sup>2</sup>. It obtained influence of satisfaction indicators of 0.894 or 89.4% and loyalty of 0.489 or 48.9%.

Hypothesis testing aimed to determine the significant rate between variables, both the T-statistic and P-value. If the T-statistic has exceeded the t-table, the P-value will automatically be significant. Testing research hypotheses was carried out based on P-Value or T-Statistics of the quality relationship of data processing results. The testing criterion is to reject the hypotheses if  $t < 1.65$  or  $P > 0.1$  and accept them if  $t > 1.65$  or  $P < 0.1$ . The results of hypothesis testing can be seen in the Table 5.

**Table 5** Results of Hypothesis Testing

	Original Sample	T-Statistic	P-Value
Trust --> Joint Liability System	0.456	5.632	0.000
Norm --> Joint Liability System	0.303	5.157	0.000
Network --> Joint Liability System	0.527	8,843	0.000
Joint Liability System --> Sharia Cooperative Performance	0.445	4.419	0.000

The Table 5 displays the original sample values ( $\beta$ ), T- statistics, and P-values. The discussion of the test results of each hypothesis is as follows.

**Trust positive and significant influence on the joint liability mechanism**

The coefficient test on the parameters unveiled a P-value of 0.000 (below 0.1), an Original sample value ( $\beta$ ) of 0.456 (the value indicates a positive direction), and a T-statistics value of 5.632 (greater than 1.65). It indicates that the trust had a positive and significant influence on the joint liability mechanism, with a significance level of 10%. Then, both values met the requirements of H<sub>1</sub> acceptance, suggesting that trust can influence the joint liability model. Thus, H<sub>1</sub> was “accepted”. The joint liability model is a method or mechanism; hence, the variable could not be measured directly, causing the trust in a group to be used to measure the joint liability mechanism. Trust could

facilitate exchanging opinions, integrity, and commitment in cooperating between members of the joint liability group. Cooperating the nature of individualism between group members with a trust may build relationships of willingness and mutual assistance.

When group members have lost their trust in peers, it will result in the length of loan payments. Islamiyati & Nugraeni (2014) stated that credit agreements provided by cooperatives as creditors without a guarantee are only given to their members based on trust. Therefore, trust is an essential value in a relationship. Gambetta (2000) described that collective action based on high trust would increase people's participation in various forms and dimensions, especially in building mutual progress and economics.

The results of this study support research conducted by Imaniah (2016) on the role of social capital in the sustainability of cooperative businesses, that trust has a role in reducing the cost of control and monitoring and improving the efficiency of the Al-Wardah Saving and Credit Cooperative. Trust can facilitate cooperating, mutual assistance, exchange opinions, and others. Hence, maintaining trust can make it work effectively. The role of trust here is to gain trust to join a joint liability group.

#### **Norms have a positive and significant effect on the Joint Liability Model**

The coefficient test on the parameters acquired a P-value of 0.000 (below 0.1), an Original sample value ( $\beta$ ) of 0.303 (the value indicates a positive direction), and a T-statistics value of 5.157 (greater than 1.65), meaning that norms had a positive and significant effect on the joint liability model, with a significance level of 10%. Both values were eligible for  $H_2$  acceptance, suggesting that norms can affect the joint liability model positively and significantly. Hence,  $H_2$  was "accepted". It signifies that the joint liability model is a method; thus, the variable could not be measured directly, making the norms in the group to be used to measure the joint liability model. Norms resulted from deliberation between group members, where there could be two possibilities, rejection or acceptance of a norm becoming a standard norm. Good norms created by companies could affect the joint liability model in a sharia cooperative.

The results of this study support the research conducted by Imaniah (2016) on the role of social capital in cooperative business continuity, that norms become the guidelines or instructions of cooperatives in acting and improving human resources (HR) of the Al-Wardah Saving and Credit Cooperative. Therefore, sharia cooperatives must focus on these factors to build better norms and mutually beneficial relationships among joint liability group members. According to Wolfe in Alfitri (2011), trust sources refer to norms, especially about members' compliance on various everyday obligations that have become unwritten agreements on the group. Coleman (1990) stated that norms are the things that determine what is right and what is wrong. Therefore, joint liability group members must adhere to the norms agreed upon by the group. The rules, norms, obligations, reciprocity, and trust are embedded in social relations, social structure, and society's institutional arrangements enable members to achieve their individual and community objectives (Narayan-Parker, 1997).

### **Network positive and significant effect on Joint Liability Model**

The coefficient test on the parameters discovered a P-value of 0.000 (below 0.1), an Original sample value ( $\beta$ ) of 0.527 (the value indicates a positive direction), and a T-statistics value of 8,843 (greater than 1.65). In other words, the network had a positive and significant effect on the joint liability mechanism, with a significance level of 10%. Both values were eligible for  $H_3$  acceptance, showing that the network can significantly measure the joint liability mechanism. Therefore,  $H_3$  was "accepted". It means that the joint liability mechanism is a method or mechanism. Hence, the variable could not be measured directly, so the network in the group was used to measure the joint liability mechanism. The built network could be a bridge to join the joint liability group.

This study is in line with research conducted by Imaniah (2016) on the role of social capital in the sustainability of cooperative businesses that the network has facilitated the addition of capital and new members. The role of a network in social capital can ease joining a joint liability group because, in this case, networking is a relationship between prospective members and members who have joined the group. Maskell and (Doh & Zolnik, 2011) mentioned that social capital contributes to entrepreneurship because high levels of social capital can reduce transaction costs between actors, cost of information seeking, bidding, and decision-making. Previous research has categorized such capital into several dimensions in identifying social capital. The dimension of social capital, such as the support in financial, network, and moral received by respondents, has become one of the crucial factors in the sustainability of SMEs (Prasetyo, 2013).

### **Influence of Joint Liability Model on Sharia Cooperative Performance**

The coefficient test on the parameters obtained a P-value of 0.000 (below 0.1), an Original sample value ( $\beta$ ) of 0.445 (the value indicates a positive direction), and a T-statistics value of 4,419 (greater than 1.65). It implies that the joint liability model had a positive and significant effect on the performance of sharia cooperatives, with a significance level of 10%. Both values were eligible for  $H_4$  acceptance, indicating that the joint liability model has a positive and significant influence on the performance of sharia cooperatives. Thus,  $H_4$  was "accepted." It means that the joint liability model could improve the performance of sharia cooperatives, measured by indicators of loyalty and satisfaction.

The results of this study align with the research conducted by Zainab (2020) that the joint liability model, as measured by the ethical values of trust, responsibility, deliberation, and discipline, positively affected the observance of credit payments. According to Sofwatama et al. (2017), optimizing services could increase the loyalty and interest of members in utilizing products. In this study, the improvement of services in the joint liability model could improve the performance of sharia cooperatives in the form of loyalty and member satisfaction. Improving the quality and quantity of service following what is desired and required by members will make them loyal and satisfied.

Moreover, Sutrisno et al. (2017) concluded that members' assessment of service quality, trust, and cooperative image positively affects member loyalty through member satisfaction.

## **Conclusion**

This study aims to discover aspects of social capital in a group of joint liability affecting the performance of sharia cooperatives in Indonesia. Ninety-eight respondent data collected by distributing questionnaires were analyzed with PLS-SEM analysis. The results unveiled that trusts, norms, and networks positively and significantly affected the joint liability model. Furthermore, the analysis discovered that joint liability positively and significantly affected the performance of sharia cooperatives as measured through loyalty and satisfaction.

The trust could facilitate exchanging opinions, integrity, and commitment in cooperating among members of the joint liability group. Meanwhile, the norm variable also positively and significantly influenced the joint liability model. It means that the higher the norm value, the better the application of the joint liability model. Furthermore, the results of this study have proven that networks positively and significantly influenced the joint liability model. In short, the stronger the networks built, the easier it is to join the joint liability group.

The results uncovered that the joint liability model had a positive and significant effect on the performance of sharia cooperatives as measured through loyalty and satisfaction. In other words, the joint liability model can make sharia cooperative members loyal and satisfied with the services provided.

### **Limitations**

This research has many limitations; therefore, further studies, of course, are expected to be improved and developed to obtain better results. Some limitations in this study are as follows. The research objects were only six sharia cooperatives/ BMT /KSPPS because many have not implemented the joint liability model during the COVID-19 pandemic. The content and form of questionnaires in this study are far from perfect. Thus, it needs follow-up to maximize the study results.

### **Suggestion**

For sharia cooperatives, it is advisable to utilize values of trust, norms, and networks to measure and maintain the joint liability model. The application of this joint liability model focuses on the principle of sharia cooperatives, namely the principle of family and mutual assistance. Implementing an excellent joint liability model can also increase the loyalty and satisfaction of sharia cooperative members.

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