Social Capital, Collective Action, and the Development of Agritourism for Sustainable Agriculture in Rural Indonesia

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Abstract: This study investigates social capital, collective action, agritourism, and sustainable agriculture in rural areas of Indonesia. Social capital, consisting of trust, networks, and norms, would encourage collective action to increase the development of village tourism/agritourism. Therefore, this study proposed more than one latent variable to define this social phenomenon and used a structural equation model (SEM) to predict those variables from the observed variables. The observed variables were two demographic data attributes namely income and education, while the latent were trust, networks, and norms, and were obtained from the question in the questionnaire survey. The results of the Mplus-SEM (Structural Equation Model), indicated that social capital facilitated collective action in societies and had a positive impact on land use protection. Furthermore, education and income as calculated variables directly influence the activities of collective action. The results also showed that higher levels of education influenced the respondents to work together to grow agritourism, in order to increase community income. Such a condition also influences young people to remain in the village, preserve land use as an agricultural system, and encourage sustainable agriculture.

Keywords: Social Capital, Collective Action, Agritourism, Sustainable Agriculture, Mplus-SEM

1. Introduction

Rural communities all over the world share a variety of factors related to local livelihoods that are dependent on natural resources, low population density, and poor connectivity. Furthermore, agriculture is the main component of most rural economies in developing countries[1)].

As both a developing nation and an agricultural country, Indonesia considers rural development an opportunity to counter poverty and ensure sustainable farming[2–4)]. Meanwhile, the idea of Sustainable Agriculture (food and horticultural crops) as an agriculture production practice includes harmonizing economic (high productivity), social (majoring living conditions), and environmental aspects (preserving the natural environment or green economy[5)]). To direct actions responsibly and harmoniously, it is important to consider the sustainability factor, which presents the values and principles which consider the effects of the environmental, social, and economic objectives [6,7)].

Agricultural tourism could be established as one of the economic priorities of rural development. Moreover, rural and agritourism development are part of rural tourism, which uses a wide variety of potential agricultural tourism sites as tourist destinations [8)]. Agribusiness activities that promote the growth of economic, social, and environmental potential are based on local characteristics, and could stimulate rural economic development [9–14)]. This would promote job opportunities in rural areas, which would not only encourage rural development [13,15)].

The rural economic growth powered by the growth of agritourism could be viewed as a ground-breaking strategy and diversification of the agricultural sector [16)], with many economic and non-economic benefits, both for farmers, rural communities, and visitors [17)]. Furthermore, the focus of agricultural tourism is on ecology, organic farming, environmental biology, human behaviour, health, and the environment [18,19)]. Therefore, additional research on this tourism is necessary due to its non-economic benefits (environmental and socio-cultural), ability to ensure sustainable farming, enhanced economic benefit, and ripple-effect stimulation of the rural economy [20–22)].

Agritourism plays an important role in alleviating poverty, reducing environmental impacts, preserving

culture[23,24], and developing the economy through the participation of communities [25,26]. In this situation, the local government and society have a very important role[27]. Therefore, the idea of this tourism is interconnected and needs constructive collaboration between public authorities, the private sector, local communities, and universities[28]. The involvement of local authorities[29] in its creation plays an important role from the start of the establishment to the end of the tourism activities in the village. Theoretically, current resources are controlled by the group engagement [30,31]. In addition to the management, the society also runs and profits from agritourism. Therefore, it needs to also be active in creating a tourist village.

The data of the Central Statistic Board showed that there are 1734 tourist villages across the regions, and most (857) are located in Java-Bali. One of such villages is the Tourist Village of Pujon Kidul. Pujon Kidul Agro-tourism is located in the District of Pujon, Malang Regency, which used to be an agro-urban village, however, has now become a unique tourist destination. This town is operated under the auspices of the BUMDes village-owned firm, known as BUMDes Sumber Sejahtera, which could deliver creative management concepts [32]. The Pujon Kidul Tourist Village has several attractions, such as rice field cafes, children pools, and horseback riding, outbound, tracking, and educational tours. The presence of unique attractions and good management enables the Village to attract more and more tourists every year. In 2018, according to [33], the number of tourist visits reached 611,939, which was an increase of more than 100 percent from the number that same year, which was 241,525 tourists.

A large number of tourists visits also affected the original PADes (Pujon Kidul 's Village Original Income), as the amount exceeded Rp 1,8 billion by the end of 2019. The number was higher than the village funds, which was 1.14 billion IDR[34]. To date, based on the Electronical Information System (EIS) data of Pujon Kidul Village (2019), Sawah Café activities could contribute 1-1.5 billion IDR a year, and are the largest source of PADes. The activities also increase the economy and create job opportunities for the local community, which could absorb 122 village young people and poor households (the data from Krajan Hamlet Secretariat, 2018). Meanwhile, this development of the local economy and the absorption of employees consequently led to a reduction in poverty from 387 in 2017 to 257 inhabitants [35].

The success of Pujon Kidul Tourism Village in increasing community income, creating new jobs, and reducing poverty made the village one of those that have managed to build and develop Agritourism. Thus, it has won several awards including an award at the Indonesia Sustainable Tourism Award (ISTA) in 2018 for the category of economic exploitation of local communities, and an award as an inspirational village in 2018 by the Ministry of Village, Underdeveloped Region, and Transmigration [36]. The achievements of Pujon Kidul Tourism Village are, of course, inseparable from the community involvement and the good governance of Sumber Sejahtera BUMDes (Village Owned Enterprises).

When community members are components of social capital, they may cooperate, especially when there is a sense of trust amongst them. According to Coleman, cited in [37,38], social capital is the ability of a community to work together (choice)[39] to achieve a certain objective. Furthermore, social capital has an important role to play in the strengthening and functioning of society. This role could serve as an opportunity for members of community groups to enrich not only on the material side but also in beneficial social relations. However, when community-owned social capital is weak, it could affect the spirit of cooperation (infrastructure development[40] and the design of architecture houses for the tourism/homestay [41]) and hinder any effort to improve community welfare [42]. The role of the community in the development of tourism would later create a community social relationship through the power of trust, norms, and networks that could become parameters in the concept of social capital [43,44].

Several literature suggest that the government has worked on human, natural, and economic capital, however, this is not the case with social capital, which has been largely ignored [39,45–47]. Thus, this research aims to link social capital and the relation with collective action in developing rural tourism that could promote sustainable agriculture. Furthermore, it study aims to evaluate the relationship between social capital to promote collective action in society.

Collective action would contribute to sustainable agriculture in rural areas. Therefore, integration was conducted using SEM-Mplus to ascertain the effect of social capital on collective action that supports sustainable agriculture. Structural Equation model (SEM) enabled the integration of qualitative and quantitative criteria into the decision-making process to be or not active in joint action. The sequence of the study is as follows: section 2 is a review and discussion of the relevant literature on social capital and agritourism. Furthermore, section 3 describes the data collection and the proposed method. While section 4 provides the result of the study consisting of a case, analytical information, and discusses some of the managerial and theoretical implications. Comments and possible future studies are included at the end.

Another contribution of this study is that it proposes and illustrates a convenient alternative for estimating ICLV (incorporated latent variables) models, which involves the use of an analytical testing kit of SEM tools for the statistical technique[48]. From a solid perspective, ICLV models could be considered one of the most important developments in discrete option modeling over the past decade. Currently, social capital and associated applications are limited. This lack is great since the complete estimation of ICLV models' knowledge is considered too difficult. Moreover, this result is consistent

with [49]'s research result which was validated and showed in a separate Monte Carlo analysis applied in ICLV models estimated with Mplus [50]. This research with a wider range of social capital definitions provides promising avenues for understanding social capital and the development of rural areas in Indonesia.

2. Literature Review

The relation between individuals leads to social capital [51,52]. Moreover, social capital is characterized as the consent of current or potential resources linked to a durable network more or less institutionalized to know each other or the recognition bond [53], since social connections have often been formed by network interactions [54]. This term is also known as the resources from which actors derive benefits from other social structures and then use them to serve their interests. The benefits here are things that are induced by changes in relationships among actors [55] and the ability of actors to gain from social networks or other social structures. The topic of social capital is clear from the following specific significances, the benefits of social networks[56] in diverse communities and the value of social networks as a means of improving resources and skills. Social capital is also believed to be the pillar for sustainable livelihoods for social relations and norms [57] as they are the current principles for personal and collective change order [58]. This social phenomenon may also play an important role in resource management in specific socio-economic and cultural contexts, such as natural resources [47,59].

When a harmonious connection is formed between financial, human, and natural resources, the effect of sustainability is generally positive. Meanwhile, unsustainable conduct tends to deplete these assets, leaving nothing for future generations [60]. Some scholars, such as Rivai[61], conceptualized sustainable development in terms of different resource types and look at methods of contributing social and human capital (as well as financial, physical or natural resources) to sustainable growth[47]. Economically, ecologically, and socially sustainable development practices including agricultural and agro-commercial activities are essential (Sragelding cited in [62]). Economically sustainable means that a development project needs to be able to generate economic growth, retain money, and utilize resources and investments effectively. Furthermore, being able to ensure the quality of a habitat, retain the potential for environmental protection, and protect natural resources, including biodiversity, defines an ecologically sustainable activity. Meanwhile, when such an activity is only socially sustainable in the meantime, it means that it needs growth to achieve equal outcomes in employment, social stability, social cohesion, and institutional progress. The concept of sustainable development, including sustainable agriculture, varies widely, as it has three pillars namely economic, social, and ecological.

3. Data Collection Method

Data from the field survey conducted in November 2019 was used to demonstrate the model in an implemented environment. Furthermore, systematic sampling was used to select 273 households in the town of Pujonkidul, DAU district, Malang regency, East Java province Indonesia. Three hamlets covering Karajan, Maron, and Tulungrejo were also selected. The data were obtained through a face-to-face interview process effectively performed within 7 days by 10 interviewers from 7:00 to 9:00 p.m.

For this analysis, two parts of the variables consisting of the observed variable and latent variables were compiled. In the questionnaire sheets covering income, occupation, education, and family members, four demographic questions were crafted for each respondent. Furthermore, to assess the extent of social capital, 14 questions relating to the respondents' feelings regarding their living environment/village and their neighbours were formulated. These questions reflected the authors' definition of social capital creation which is divided into three structures namely trust, networks, and standards. Ultimately, to be aware of the behaviours of respondents in the group, 4 questions were developed for their involvement in community behaviours. The data helped in the creation of social capital and how it contributes to collective action.

The trust components were assessed using 7 questions included in the questionnaire, namely (T1) trust in neighbours, (T2) trust in people of different backgrounds such as ethnic/cultural backgrounds, (T3) confidence in the establishment of a village of touristic tourism officials by village officials, and (T4) trust in the role of community leaders in building a tourist village. Furthermore, networking problems were addressed using the following 6 (six) questions, (N1) community growth cooperation, (N2) Religious engagement, (N3) community social engagement, (N4) participation in community social activities, (N5) regular neighbourhood communication, and (N6) community/group event involvement, including problems related to regular Norms consisting of (Norm1) customary rule compliance, and (Norm2) typical practices or events attendance. The basic demographics were only 2 (two), namely (I) level of income and (E) education. Finally, Collective action was taken to decide how group engagement in civic events is started.

Confirmatory Factor Analysis (CFA) and SEM analyses were carried out by paying attention to the rules and considering the current load factor values with a minimum Equal Classification Value (0.45). Meanwhile, for model suitability, the cut-off value parameter is in Table 1.

Table 1. Model Fit Index.

Index Category	Cut Off Values	Sources
Chi-Square	≤ 764	Bentler et all[63]
Cmin/df	< 3	Hooper [64]
RMSEA (Root Mean Square error of approximation)	≤ 0,08	Schumaker & Lomax [65]
CFI (Comparative fit index)	≥ 0,90	
TLI (Tucker-Lewis Index)	≥ 0,90	Khine [66]
SRMR	< 0,05	Bentler et all[63]

4. Results

4.1 An Overview of Pujon Kidul Village

Pujon Kidul Village is one of the villages that have grown into an agritourist in the Malang Regency. In 2017, the village won an award for being the best with regards to the development of Agritourism, in the Agropolitan Village category. Moreover, the award was given by the Ministry of Village, Deprived Village, and Transmigration. The development of Agritourism in the village, which is not yet 1 year old, has been able to produce a turnover of up to 3.5 billion IDR.

Pujon Kidul Village is one of the villages established as a tourist village located in the Agropolitan district of Pujon, which has the following administrative boundaries. Northside, Ngroto and Pujon Lor villages, westside, Pandesari Village, southside, Perhutani Forest, and eastside, Sukomulyo Village. Furthermore, this village is generally used for farming because the majority of its residents are farmers. Within its territory, there were 59 hectares of rice, 240 hectares of Tegalan, and 25 hectares for settlements. Finally, the communities in the village include 18 RT and 9 RW and are composed of 3 Krajan Hamlets, and Maron and Tulungrejo Hamlets.

4.2. Respondent Characteristic

In this case, respondents' characteristics were one of the variables used in the measurement of Pujon Kidul's social capital. Furthermore, income and education are the attributes of respondents used in social capital models.

Income

The amount of income was the sum of the earnings of the Pujon Kidul people in a month. Based on the data, the presence of a tourist village has very different consequences. For example, when a house is in the vicinity of a rice-farm cafe, job for members of that household at the farm is permanent. Meanwhile, the same cannot be said for people far from the Café Sawah site.

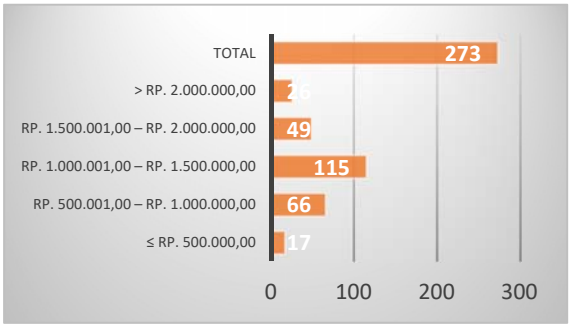

Fig. 1: Income Level

Based on Figure 1. it is clarified that Rp accounts for several people's earnings. In one month, the majority earns between 1,000,000 (IDR) to 1,500,000 (IDR). Meanwhile, those with income below 500.000 (IDR) were 6.23%, and over 2.000.000 (IDR) up to 9.52 percent.

Education

The degree of education represents the way of thinking and the attitude displayed in discussing the situation. Generally, with more human resources awareness, the education level would be higher, however, this is not always the case.

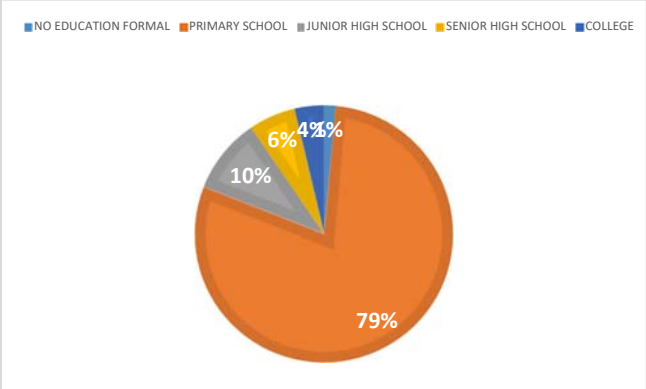

Fig. 2: Education Level

Figure 2 shows that almost 80% of the people had the most recent elementary education. Furthermore, this figure is of course, an image of the general state of the community in the Pujon Kidul Village. There was also 3 percent of those with the most recent university education (8 respondents). While the rest ranged from not going to school and from junior high school to high school.

4.3. Social Capital Component

Trust

Trust is one of the variables used in evaluating the Pujon Kidul Tourism Village's social capital. The outcomes of responses were connected to different sub-variables of confidence. Finally, every hamlet had different answers as well. Figure 3 shows the effects of the answers of the respondents.

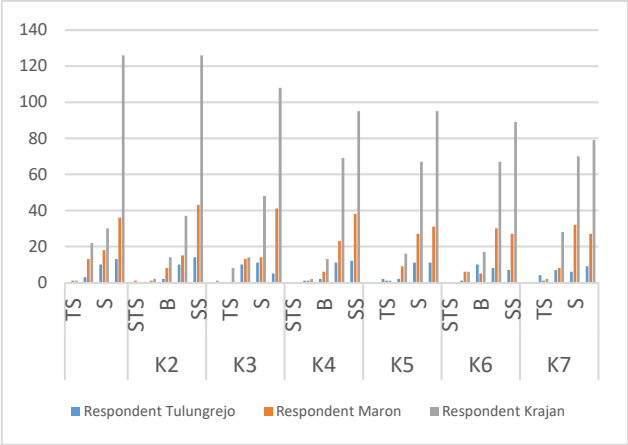

Fig. 3: Trust

Note: K: Trust
STS: Totally disagree, TS: Disagree, B: Neutral, S: Agree, SS: Totally Agree

The results of the confidence-based evaluation classification for Krajan Hamlet were in the high category, Maron Hamlet in the medium category, and Tulungrejo in the low category (Figure 3).

K1 the question "Do you trust the neighbors in your neighborhood" Trust is related to disseminating information and lending and borrowing of goods. 64.1% of respondents strongly agreed that they trusted their neighbors in delivering information on tourism village development. Meanwhile, 13.91% showed a neutral response or took it for granted.

K2 the question "I believe in people who have an ethnic/cultural background that is different from mine." As many as 22.71% stated that they agreed to believe in different ethnicities/backgrounds, while 67.03% stated that they strongly agreed and showed that these differences were not a problem.

K3 discusses the views of village officials with the question, "In general, do I believe that village/kelurahan officials have carried out their duties to develop a well-to-do tourist village? The community's responses showed that 56.41 percent strongly agreed (SS), 26.73 percent agreed (S), while 1.46 percent disagreed. Respondents that disagreed assessed that not all staff worked together.

K4 is an indicator of how the community reacts to the role of local community leaders in their location. Up to 1.46 percent disagreed that the community leaders had an important role in resolving village problems. However, 53.11 percent said they strongly agreed (SS) if community leaders were considered to help the village if they had problems developing a tourist village.

K5 Statement 'In general, I believe that religious leaders in the environment can act as role models/guides in developing a tourist village. The role of religious figures, as role models in assisting in developing tourist villages, was strongly supported by a community of up to 50.18 percent (SS), however, 9.89 percent said they were neutral. In contrast, 1.46 percent said they disagreed.

K6 Statment "In general, I believe that Pokdarwis can play a positive role in the development of a tourist village "In general, 45.18 percent strongly agreed (SS), and 38.46 percent agreed (S). Meanwhile, some people believe that the role of pokdarwis was not as optimal, as reflected in 11.72 percent that said that they were neutral (B) and 4.76 percent disagreed (ST).

K7 statement "I trust pokdarwis in the programs it runs" is one indicator of community-owned social capital assessment. 42.12 percent have stated that they strongly agree (SS), while 2.56 and 15.75 percentages stated that they do not agree and are neutral, respectively.

Norms

Social capital, which could also be calculated in Pujonkidul Village, was linked to the norms. Moreover, the standards were written and respected by the Community in compliance with customary law. The outcomes of the answers are connected to specific sub-variables of the norm. Finally, there are different answers for each hamlet.

Figure 4 indicates the outcomes of the responses.

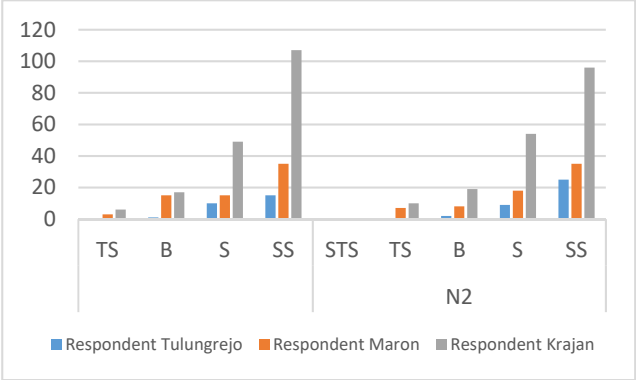

Fig. 4: Norms

Note: N: Norms
STS: Totally disagree, TS: Disagree, B: Neutral, S: Agree, SS: Totally Agree

N1: "In my opinion, it is crucial to obey customary rules in the village" The results of the respondents' statements, which when viewed as a whole, were divided into three hamlets are first, 57.5 percent agreed or strongly agreed on the application of customary interests, while 27.1 and 12.1 percentages responded agreed and neutral, respectively.

N2: "In my opinion, it is imperative to participate in traditional activities or events in the neighborhood where I live" 54.14 percent of respondents responded strongly agree to this opinion, while 29.67 percent agreed. Furthermore, 6.2% were neutral, and 6.23 percent disagreed.

Social Network

This social network comprises 6 vector materials used for questions in each questionnaire. Concerning the networks, the involvement of the society in the development of a tourist village is mirrored. All the questions posed, of course, apply directly to engagement, collaboration, involvement, and other topics. The outcomes of responses were linked to the different sub-variables of the social network. Also, there were different responses to every hamlet, too. Figure 5 shows the effects of the responses of respondents.

J1 discusses the statement, "I think the village community always works together to achieve the success of the tourism village development program as this is very important" The main interest in work is to successfully achieve various objectives. 51.28 percent of the public agreed to this statement.

The J2 statement is as follows, "I think participating in religious activities in the neighborhood (recitation, celebration, religion, etc.) is very important and is a means of communication between residents and village development programs" 35.53 percent agreed with the statement. Meanwhile, 56.77 percent strongly agreed, while 0.735% disagreed.

Statement J3 "In my opinion participating in social activities (arisan, sports, arts) is very important and is a means of communication between residents and village development programs." Almost 50.91 percent of the community agreed to this, while 0.36 percent strongly disagreed.

J4 discusses participation in the form of suggestions at a community event with a statement, "In my opinion, giving opinions/suggestions and funding at community meetings related to the development of neighborhood villages tourism is very important. Forty-five percent agreed that suggestions need to be made at meetings. Meanwhile, the other 1.5 and 7.3 percentages consider citizens' contribution.

In J5, 50.18 percent strongly agreed with the statement, "I think it is imperative to communicate with neighbors daily to maintain friendship and intimacy" The same goes for interactions with neighbors. However, over 6.55 percent were neutral.

The statement "I think it is crucial to be involved in community events/tourism groups in my village" received the following responses. 0.73 percent of the community still thought the matter was not very important. In comparison, 45 percent agreed and strongly agreed that involvement in the community is important.

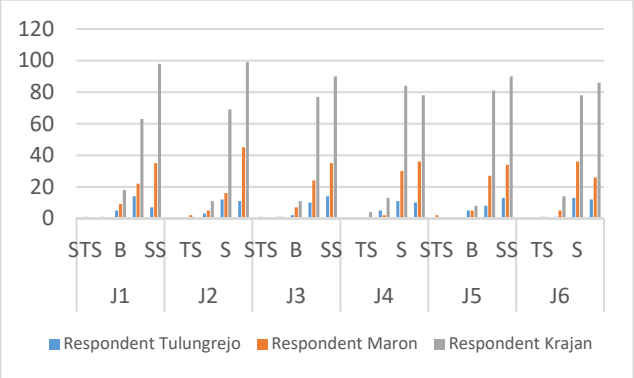

Fig. 5: Social Network

Note: J: Networks
STS: Totally disagree, TS: Disagree, B: Neutral, S: Agree, SS: Totally Agree

4.4. Collective Action

Collective action was assessed using Mplus-SEM to determine the relationship between social capital and group action decisions. Moreover, the decision to act together was the first step for the group to be able to engage in agritourism to sustain village agriculture.

The respondents' responses to the decisions in the joint action were different. Furthermore, every hamlet gave different responses, too. Respondents' findings are shown in Table 2.

C1: Actions that emerged from the village apparatus
C2: Actions arising from community initiatives

Table 2. Respondents Response to Collective Action variables

Question	Answers	Response (Hamlets)			
		Tulung-rejo	Ma-ron	Kra-jan	Total %
C1	Yes	25	65	167	95%
	No	1	0	12	5%
C2	Yes	16	40	103	59%
	No	10	25	76	41%

Based on Table 2, the results show that for actions brought about by the village government, almost 95% agreed or participated, while 5% answered no. Meanwhile, for activities initiated by the community, 59% said they participated, while 41% stated no. The question is based on conditions of cooperation or collective action in building a tourist village. This figure represents the community that felt involved and knew about the development of the village into a tourist village.

4.5. The Confirmatory Factor Analysis (CFA) Test

The Confirmatory Factor Analysis (CFA) test is designed to bring about a fit model with acceptable cut-off conditions and a good loading factor. The loading factor is the correlation value between the indicator and its latent construct. In this study, the minimum loading

factor was 0.45. Furthermore, the CFA test was carried out on the social capital variable, as this variable had several variables in each sub-variable to assess the viability of the research results. Moreover, the test was carried out to achieve optimum results in compliance with current field conditions. It was conducted thrice, each time the indicator was removed because it did not meet the minimum loading factor value (0.45). That is the final result of the elimination of the CFA test model. Indicators of social capital show variables by the defined index value in Table 3.

Table 3. Suitability of the CFA Construct Model for Social Capital Variables

Index	Cut off	Estimation Values	Note
Chi-Square	≤ 764	526	Good Fit
Cmin/df	< 3	1,19	Good Fit
RMSEA	≤ 0,08	0,026	Good Fit
CFI	≥ 0,90	0,988	Good Fit
TLI	≥ 0,90	0,982	Good Fit
SRMR	< 0,05	0,033	Good Fit

The indicator fit index value follows the Good Match information criteria. Furthermore, the third test results met the stated criteria. The indicator was also tested for the loading factor value [48], and the results showed that the value was above 0.45 (Fair) for each indicator (Figure 6.)

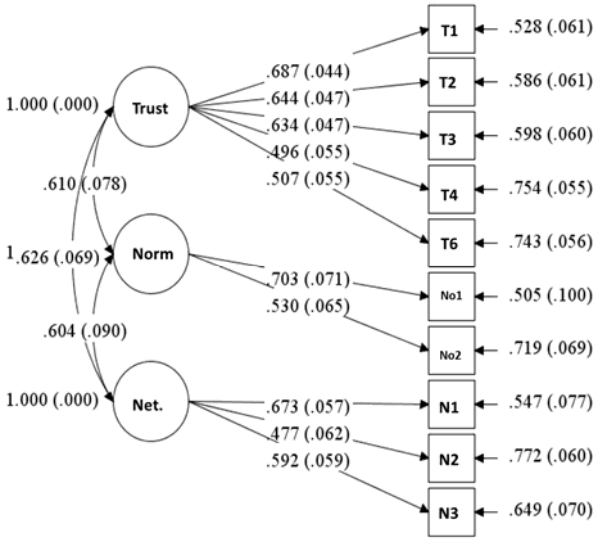

Fig. 6: Model CFA variable (Social Capital Model)

This is the loading factor value for each indicator (Table 4).

Table 4. CFA Test Results on Social Capital Variables

Nota-tion	Sub Variable	Loading Factor Estimate Value	Loading Factor (clarification)	Note
K1	Trust the neighbors	0,687	0,71 very good 0,63 very good 0,55 good, 0,45 fair, and 0,32 poor	Very good
K2	Trust with neighbors from different ethnicities	0,644		Very good
K3	Trust in village officials	0,634		Very good
K4	Trust in community leaders' role in village growth	0,496		Fair
K6	Trust in touring-conscious groups	0,507		Fair
N1	Obey customary rules	0,703		very good
N2	Participation in traditional activities or events	0,530		Fair
J1	Community cooperation in development	0,673		Very good
J2	Participation in religious activities	0,477		Fair
J3	Participation in community social activities	0,592		Good

The third CFA test results showed that each sub-variable indicator met the suitability index while loading factor's value (at least in the Fair category). Indicators that could be used to further analyze each sub-variable are Trust K1, K2, K3, K4, and K6, norms namely N1 and N2, and social networks, namely J1, J2, and J3. The subsequent analysis of the social capital indicators included are indicators that were consistent with the model or declared feasible. Furthermore, CFA could establish the relationship between the sub-variables tested.

4.7. Relationship between Social Capital, Collective Action and Sustainable Agriculture

Collective action in the community is an indicator of sustainable agriculture. This is because it encourages all elements of society to work together in land management and joint agri-tourism. The Shaped model indicated a connection between field conditions and social capital. Moreover, the method was carried out twice by deleting negative indicators/sub-variables.

The relationship model while it was being developed was included in the good fit category because it had an index value that matched the cut-off value (Table 5). The next step was to investigate the relationship between the indicators/sub-variables with the model.

Table 5. Suitability of Social Capital Construct Model and Collective Action

Index	Cut Off	Estimation Values	Note
Chi-Square	≤ 764	667,000	Good Fit
Cmin/df	< 3	1,11	Good Fit
RMSEA	≤ 0,08	0,021	Good Fit
CFI	≥ 0,90	0,988	Good Fit
TLI	≥ 0,90	0,984	Good Fit
SRMR	< 0,05	0,039	Good Fit

The findings are based on the following models (Table 6 and Figure 7):

- Social capital is determined by trust, norms, and social networks. Figure 7 shows the path value form trust →SC (0,818), norms → SC (0,808) and Network → SC (0,726) are significant (p-value: ***) (Table 6).

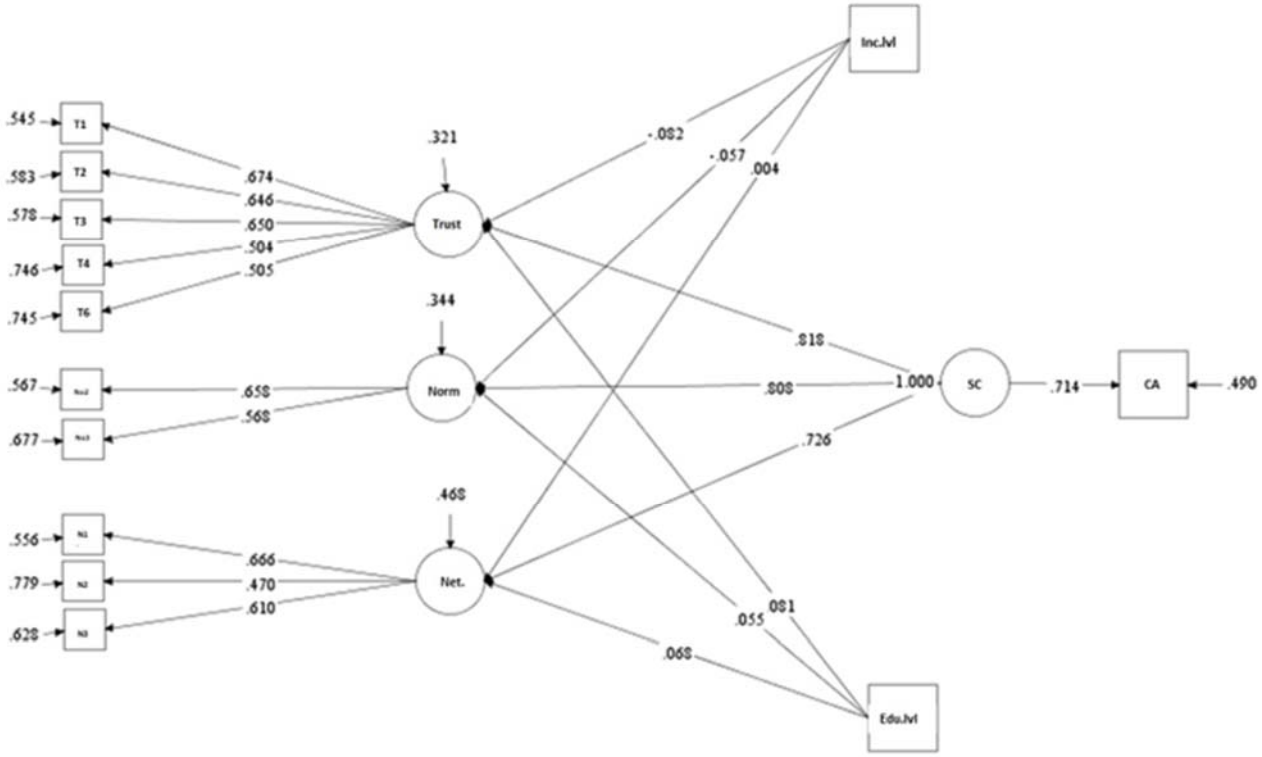

Fig. 7: The Model (Social Capital, Collective Action, Agrotourism, and Sustainable Agriculture)

Table 6: Value of Relationship Between Variables (C2 Model)

Relation	Regression Weight	Standard Error	P-Value	Note
Trust → Social Capital	0,820	0,052	***	Significant
Norms → Social Capital	0,808	0,073	***	Significant
Network Sosial → Social capital	0,727	0,064	***	Significant
Income → Social Network	0,032	0,071	0,647	Positive Relation, Not Significant

Relation	Regression Weight	Standard Error	P-Value	Note
Education → Social Network	0,059	0,075	0,433	Positive Relation, Not Significant
Education → Trust	0,054	0,061	0,374	Positive Relation, Not Significant
Education → norms	0,036	0,074	0,629	Positive Relation, Not Significant
Social Capital → Collective Action	0,711	0,047	***	Significant

Note : P>0,05 = not significant, p<0,05 (***) = significant

- Education level had a relationship with networks, norm, and trust; however, the value was low, (0.036 to 0.059), which was not significant. Furthermore, although, the education level was about 80% primary school and 10% junior high school, it could create a level of cooperation, togetherness in activities, cultural excellence, and cangkruk'an (informal discussion) among residents.
- Social capital had an impact on collective action, which was in a good category. The path values were (0.714) and significant (p-value: ***). The results of the analysis showed that the SC encourages collective action in developing tourist villages.
- Overall, the structural model represents the Pujonkidul community's conditions. A community with good trust, norms, and social networks as a form of social capital could improve collective action in the community.
- Collective action within the community could increase the role of the community in the development of a tourist village. This would then increase the young generation's involvement in the development of the tourist village.
- The development of agritourism, which encourages increased income, was finally able to keep young people working in the agricultural sector (within tourism village). The communities' final decision would preserve their land and encourage young people to continue working in the agriculture and tourism sectors.

5. Conclusion

The following conclusions were drawn based on the results of the analysis carried out on the relationship between social capital and collective action in sustainable village development.

1. Agritourism has a significant influence on the environment, economy, society, and culture. Tourism events promote the advancement of the community's business opportunities to combine agriculture and tourism. Moreover, established organizations establish as tourism managers and agricultural product marketing agencies.
2. The relationship between social capital and collective action could be seen from community participation in village tourism activities. Social capital components such as community trust, social networks, and norms could be the backbone of collective action to encourage agro-tourism. The results of the Mplus-SEM calculation indicated that social capital promotes substantial value collective action and the value of regression weight is 0.711. This means that it would increase cooperation among citizens to improve farming.
3. The relationship between social capital and the development of villages was affected by norms, trust, and social networks. Moreover, trust was expressed by the relationship of trust between neighbors, neighbors of different ethnicities, and community leaders. Norms were interpreted in customary rules and events, while social networks were established through collaboration, involvement in religious activities, and social interaction. The relationship of social capital in the creation of villages contributed to the formation of trust between inhabitants, the participation and preservation of the values and customs of the community, the skilled management, and the leading tourism community.
4. The relationship between social capital and collective action in the creation of villages represents the role of the community in the decision-making of collective action. Moreover, collective actions initiated by the Government of the village turned out to have little impact on the social capital that was formed, however, the collective actions initiated by the community had a substantial relationship with social capital and the decision to take collective action.
5. The development of agritourism that encourages increased income is finally able to keep young people working in the agricultural sector. The communities' final decision would preserve their land and encourage young people to continue working in the agriculture and tourism sectors.

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