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# Analysis of Network Model Determinant on Tourism SMEs Performance

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## ABSTRACT

This research empirically tests and analyzes the network model that affects the performance of Tourism SMEs. The SME Tourism network model includes knowledge sharing and innovation. Knowledge sharing is measured by network density, network centrality, relational social capital (CSR) and cognitive social capital. The model was developed based on the relationship between tourism SMEs through one-cluster SME networks, inter-cluster SMEs, networks with CSR and networks with local governments. The sample used in this study was tourism SMEs in Temanggung and Semarang districts with different tourism characteristics. The study used a sample of 66 respondents and data processing using SPSS to test validity and reliability and WarpPLS 3.0 to test the research mediation model. The results showed that the cognitive social capital of one cluster, between clusters, CSR and government had a significant positive effect on knowledge sharing. Sharing knowledge has a significant positive effect on SME performance. This means that knowledge sharing is measured using network density, network centrality, relational social capital (CSR) and one cluster social cognitive capital, between clusters, CSR and the government supporting SME performance. Innovation also has a significant positive effect on the performance of SMEs in Temanggung and Semarang District. This research contributes to policy making that will support the progress of SME tourism support with different tourism characteristics. The implication of this research is a strategy in the form of a network model as a lever factor for the progress of Tourism SME.

*Keywords: knowledge sharing, innovation, SME performance*

## 1. INTRODUCTION

Corporate social responsibility (CSR) has become one of the emerging topics in today's business environment. An increase in CSR perspective is due to two reasons; first is free media, global trade, and information sharing. Society requires the corporation to be more responsible towards social problems, and the government had to provide solutions to such problems [11]. Strategic Role SMEs in the structure of the Indonesian economy around 99% of business units in Indonesia are SMEs and absorb almost 97% of the Indonesian workforce [8]. SMEs have a strategic role in improving the economy in Indonesia. However, [12] explains common problems of SMEs in Indonesia are as follows lack of working capital; marketing difficulties; limited access to financial resources; lack of technological skills and management; low productivity; limited access to productive resources, particularly capital, technology, information and markets; the still low quality of institutions and organization of cooperatives; lack of business networks. Efforts are needed to foster a climate conducive to the development of SMEs. This is increasingly supported by the development of the tourism sector in the area. This research has significance and contributes to the management of SME development strategies through strengthening networks to support tourism SMEs. This research produced a model to strengthen SME networks with CSR perspective is free media, global trade, and information sharing.

This research focuses on the SME cluster industry with geographical proximity factors, so it is expected to produce efficient collaborative synergies. The aspects discussed in this study are strategies in the form of analysis of factors that are able to contribute to competitive advantage for SME tourism clusters. The model developed in this study refers to the research conducted by [6]. The similarity of this research with previous research is to use a research model developed by [6] namely Social Capital that is built with Network Density, Network Centrality, Relational Social Capital, and Cognitive Social Capital will influence the Knowledge Sharing and Performance of SMEs mediated by Innovation. However, this research differs from previous studies, previous studies only focused on the performance of SMEs on one type of cluster, this study was developed by looking at the context of the pattern of one cluster network, between clusters and their relationship with government. How CSR perspective develops in UKM with tourism appeal. Researchers develop from several previous studies [9], [14], [13], [4] which examines SME performance.

Some of the problems faced by SMEs that make it difficult to develop include human resource competencies, ability to access information, limited capital, limited technology, product quality, packaging, marketing strategies, promotion that has not been maximized and weak SME networks in the form of groups or other groups. Business networks that are formed, effectively improve business competitiveness

because they can work together. Emphasis on the role of the quality of social networking is shown from several studies conducted namely [3], [5], [2], [7]. Business networks play an important role in strengthening the competitiveness of companies, especially SMEs. The purpose of this study is to empirically examine and analyze the factors that can improve the performance of SMEs in terms of CSR perspectives and SME networks conducted in one cluster, between clusters and government.

## 2. RESEARCH METHOD

The purpose of this study is to empirically examine and analyze the effect of Social Capital proxied by Network Density, Network Centrality, Relational Social Capital, and Cognitive Social Capital will influence the Knowledge Sharing and Performance of SMEs mediated by Innovation. The sampling method used in this study was purposive sampling. The sample criteria in this study are SME owners, SMEs have been managed for more than 1 year. It is expected that these SMEs have better SME management with their involvement in one cluster, between clusters and with the government. The type of data in this study is primary data with data collection techniques through surveys in the form of questionnaire statements. The list of statements in the questionnaire was drawn from research conducted by [6] which was adjusted to the development of the research conducted.

Measurement of network density variables is good relationship with other enterprises in the cluster, relations among other firms in the cluster are very close, frequent communication with other enterprises in the cluster. Network centrality is enterprise is an important member among others in the cluster, enterprise plays a central role in the cluster, enterprise has established extensive relationships with surrounding firms. Relational social capital (RSC) is believe that if in trouble, other firms will try to help out, believe that if need any help, other firms are willing to help, can always rely on other members in the cluster. Cognitive social capital (CSC) is always agree with other firms on what is important for the development of the cluster, share the same ambitions and vision with other firms on the development of the cluster, enthusiastic about pursuing the collective goals and missions of the cluster. Knowledge sharing is frequently exchange important information (such as market trends) with others in the cluster, often obtain valuable information through relationships with others in the cluster, share my business experience with others in the cluster, learn a lot from others in the cluster. Innovation is firm provides new products and services before others do, our new products and services are often perceived as novelty goods by customers, our new products and services make us competitive with others. Performance is business has experienced an increase in sales compared to last year, business has experienced an increase in operating revenues compared to last year, business has experienced an increase in employees compared to last year. Measurement of these variables was developed by adding relationships between clusters and relations with government.

**H1.** Social capital positively influences knowledge sharing
**H1a**. Network density positively influence knowledge sharing
**H1b.** Network centrality positively influence knowledge sharing
**H1c.** Relational social capital positively influence knowledge sharing
**H1d.** Cognitive social capital positively influence knowledge sharing
**H2.** Knowledge sharing positively influence innovation
**H3.** Knowledge sharing positively influence performance
**H4.** Innovation positively influence performance

## 3. RESULTS AND DISCUSSION

The results of testing the validity and reliability of research variables showed the results of all valid variables (significant value of Pearson correlation <0.05) and all reliable variables (Cronbach's Alpha value> 0.7) [1].

**Table 1** Validity Test

| Variable | Item | Sig. (2 tailed) | *Pearson Correlation* | Note |
|---|---|---|---|---|
| Network Density (ND) | ND1 | 0,000 | 0,740** | Valid |
| | ND2 | 0,000 | 0,706** | Valid |
| | ND3 | 0,000 | 0,610** | Valid |
| | ND4 | 0,000 | 0,673* | Valid |
| | ND5 | 0,000 | 0,753** | Valid |
| | ND6 | 0,000 | 0,807** | Valid |
| | ND7 | 0,000 | 0,766** | Valid |
| | ND8 | 0,000 | 0,726** | Valid |
| Network Centrality (NC) | NC1 | 0,000 | 0,763** | Valid |
| | NC2 | 0,000 | 0,828** | Valid |
| | NC3 | 0,000 | 0,680** | Valid |
| | NC4 | 0,000 | 0,687** | Valid |
| | NC5 | 0,000 | 0,623** | Valid |
| Relational Social Capital (RSC) | RSC1 | 0,000 | 0,776** | Valid |
| | RSC2 | 0,000 | 0,804** | Valid |
| | RSC3 | 0,000 | 0,776** | Valid |
| | RSC4 | 0,000 | 0,677** | Valid |
| Cognitive Social Capital (CSC) | CSC1 | 0,000 | 0,656** | Valid |
| | CSC2 | 0,000 | 0,724** | Valid |
| | CSC3 | 0,000 | 0,689** | Valid |
| | CSC4 | 0,000 | 0,695** | Valid |
| | CSC5 | 0,000 | 0,695** | Valid |
| | CSC6 | 0,000 | 0,729** | Valid |
| | CSC7 | 0,000 | 0,678** | Valid |
| | CSC8 | 0,000 | 0,715** | Valid |
| Knowledge Sharing (KS) | KS1 | 0,000 | 0,734** | Valid |
| | KS2 | 0,000 | 0,633** | Valid |
| | KS3 | 0,000 | 0,798** | Valid |
| | KS4 | 0,000 | 0,794** | Valid |
| | KS5 | 0,000 | 0,733** | Valid |
| | KS6 | 0,000 | 0,802** | Valid |
| | KS7 | 0,000 | 0,715** | Valid |
| | KS8 | 0,000 | 0,552** | Valid |
| Innovation (I) | I1 | 0,000 | 0,781** | Valid |
| | I2 | 0,000 | 0,829** | Valid |
| | I3 | 0,000 | 0,772** | Valid |
| Performance (P) | P1 | 0,000 | 0,869** | Valid |
| | P2 | 0,000 | 0,864** | Valid |
| | P3 | 0,000 | 0,845** | Valid |

**Table 2** Reliability Test

| Variable | r alpha | Note |
|---|---|---|
| Network Density | 0,870 | Reliable |
| Network Centrality | 0,766 | Reliable |
| Relational Social Capital | 0,752 | Reliable |
| Cognitive Social Capital | 0,849 | Reliable |
| Knowledge Sharing | 0,869 | Reliable |
| Innovation | 0,700 | Reliable |
| Performance | 0,815 | Reliable |

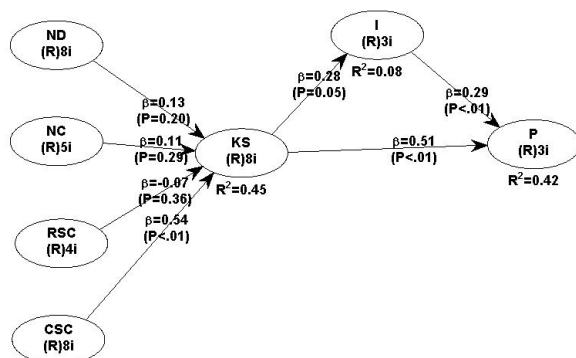Test the research hypothesis using WarpPLS 3.0 [10] with the following results.



**Figure 1** Hypothesis Analysis

The results of hypothesis testing indicate that the Cognitive Social Capital variable has a positive effect on Knowledge Sharing. Cognitive social capital is a proxy of social capital, which always agrees with other features on what is important for the development of the cluster, share the same ambitions and vision with other features on the development of the cluster, enthusiastic about pursuing the collective goals and missions of the cluster. Cognitive Social Capital is the ability of people in a group to work together to build networks to achieve common goals. The cooperation that arises is a pattern of mutual interaction and mutual benefit and is built on trust that is supported by social values. The Role of Cognitive Social Capital for SMEs in solving problems that arise. Cognitive Social Capital focuses more on community empowerment efforts. Cognitive Social Capital influences the bonds between relations in achieving the desired goals. In the Tourism SME sector, Cognitive Social Capital is expected to help networking as a form of knowledge sharing and improve SME performance.

The results showed that Knowledge sharing had a positive effect on the performance of SMEs and Innovation had a significant positive effect on MSME Performance. It means that knowledge sharing is measured frequently exchange important information (such as market trends) with others in the cluster, often obtain valuable information through relationships with others in the cluster, share my business experience with others in the cluster, learn a lot from others in the cluster supports SMEs performance. This research contributes to policy making that will support the advancement of tourism support SMEs with different tourism characteristics.

## 4. CONCLUSION

The model was developed based on the relationship between tourism SMEs through one-cluster SMEs networks, inter-cluster SMEs, networks with CSR and networks with local governments. The sample used in this study was tourism SMEs in Temanggung and Semarang Regency (Banyubiru) with different tourism characteristics. The results showed that Knowledge sharing had a positive effect on the performance of SMEs. It means that knowledge sharing measured using network density, network centrality, relational social capital (CSR) and one-cluster cognitive social capital, between clusters, CSR and government supports SMEs performance. This research contributes to policy making that will support the advancement of tourism support SMEs with different tourism characteristics. This research is different from previous research because this research develops in accordance with the Group Discussion Forum (FGD) conducted to determine the SMEs networks in 3 districts. The implication of this research is a strategy in the form of a network model as a lever factor for the progress of the Tourism SMEs.

## 5. ACKNOWLEDGMENT

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