SOCIAL CAPITAL DIMENSIONS IN SMES MANUFACTURING FIRMS IN CENTRAL JAVA: DO THEY MATTER?

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ABSTRACT
This research attempts to analyse factors improving the product innovativeness through the empowerment of social capital. Since there are at least three forms of social capital in the forms of structural, cognitive and relational, this study attempts to examine the effect of those three on the product innovativeness. The study taken the small and medium-sized wood-furniture enterprises in Jepara district, Central Java, Indonesia, as research object. Data were collected by using closed questionnaire method by giving questionnaire to 100 respondent. Data were tested with multiple regression test of the SPSS statistical software. The results show among three forms of social capital, only relational capital that has significant effect on the product innovativeness in small and medium-sized wood-furniture enterprises in Jepara district, Central Java, while the two others have no significant effects.

Keywords: structural capital, cognitive capital, relational capital, innovativeness, SMEs

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1. INTRODUCTION
The company can achieve sustainable competitive advantage through the empowerment of product innovation. The company will not be able to survive without the product innovativeness that leads to the discovery of new products, new markets and new resources. In other words, without the product innovativeness, the company will not be able to innovate products, markets and resources that can impact on their success.
In general, SMEs face major problems associated with low product innovativeness. According to Yamada (2003) innovativeness of the product related to the ability to perform activities of a business paradigm shift that has been around, and improve the mechanism of structuring knowledge to create new products. In this connection the main role of the company is not only to take advantage of existing business opportunities, but to actively connect its companies with unknown opportunities (Nupus, Setiadi & Soesanto, 2017). The innovation efforts of the company can be created through a series of strategic steps, for instance, by creating social capital among internal stakeholders.

Building the social capital for small and medium-sized wood-furniture firms in Jepara district, Central Java is synonymous with building a driving factor of innovation of their products. Product innovation will be able to produce a unique product and has a superior value for customers. Innovativeness is believed to be a strategic factor that drives the performance of the export products, such as furniture in Central Java. According to Luk et al. (2008) the product innovation is a major determinant of the performance of new products. In similar notion, Li et al. (2006) state that product innovativeness resulted in improved product performance. Thus, problem posed in this research is how to improve the product innovativeness through the empowerment of social capital. Since there are at least three forms of social capital in the forms of structural, cognitive and relational, this study attempts to examine the effect of those three on the product innovativeness.

2. LITERATURE REVIEW AND HYPOTHESIS

Both in new as the mature companies, product innovativeness led to opportunities for product development, technological advances, and the creation or wealth for the company. This is because the company's main activity is to improve product performance in an effort to penetrate the market. The problem is that the innovativeness of the product is not necessarily within the company, but must be built and nurtured. Growing product innovativeness can be done through the development of relational capital which is one of the dimensions of social capital, built through the mobilization of structural and cognitive social capital.

Melander and Nordqvist (2002) state that the main dimensions of social capital are structural social capital, cognitive social capital, and trust or relational capital. The last mentioned provides a basis for structural and cognitive social capital, while the structural social capital is a vehicle for the relational capital. Relational capital helps coordination within the community, and structural social capital lowers search costs. It can be said that social capital lowers transaction costs, and can be seen as economic assets of the company. Thus it can be said that the high relational capital and the extensive structural social capital indicates accumulation of social capital that drives the company's economic capability.

Ellonen et al. (2009) state that the high level of relational capital that has a positive impact on the effectiveness and quality of the product innovativeness. Similarly, Tyler (2003) state that the relational capital is able to move product innovativeness through increased efficiency and effectiveness of communication, cooperation and collaboration, and commitment.

Structural social capital is a structural networking such as relationships between people, form relationships and alignment relationships. This structural network includes binding, forming, and matching networks. Network ties connect between members within the organization. To explain how this structural social capital works in the company, Nahapiet and Ghosal take of research results of Krachhard & Hanson (1993) who expressed that relationships among members within the organization have important influences in information transfer, and organizational learning (Fisher & Whiel, 2000), and execution of corporate activities (Shah, 2000). Thus it can be said that the transfer of information and knowledge within the company will occur when employees are interconnected. Thus the
activities of the company will be more efficient if individuals within the company know each other well or interpersonal relationships occur.

Network conformity can significantly affect the flow of information and assistance in a network. The suitability of networks relating to the ease of various forms of relationships can be transferred in the network. For example, a worker may be able to accomplish his tasks easily because he has friends who are experts in the field of work. The relationships formed between individuals are informal, so that networks formed for a particular purpose may be useful for other purposes. In studying the relational social capital and cognitive social capital Bolino, Turnley and Bloodgood (2002) refers to the opinion of experts such as Granovetter (1973), Krackhard & Hanson (1993), Mishiro (1996), Jones & George (1998), Weich (1995), Boisot (1995).

According to Granovetter (1973) relational social capital is a relationship as indicated by the high level of confidence, therefore, relational social capital is often identified with the trust. In other words, relational social capital as an emotional relationship between individuals are characterized by trust, reciprocity, and the intensity. Krackhard and Hanson (1993) defined the relational social capital as an interpersonal relationship that occurs naturally. Relational social capital with regard to the relationship between the workers in the company of mutual cooperation, mutual relational capital, and are bound together, will have an impact on performance of company where the group works.

Mishiro (1996) states that mutual relational capital arises from belief in good intentions, openness, competence, reliability from other individuals or groups. Jones and George (1998) adds that relational capital fosters social and resource exchanges, improves communication, fosters cooperation among members. Thus it can be said that a high level of confidence (relational capital) in the SME enterprises will develop teamwork and improve organizational functioning company that is a favorable climate for innovation.

Cognitive social capital with regard to the ability of individuals within the company to understand one another. Mutual understanding between workers is achieved through mutual exchange of ideas, and sharing stories. When language and story sharing occurs, workers can more easily discuss the problem, transfer ideas, share knowledge, and help each other. According to Weich (1995), cognitive aspect of social capital with regard helps to improve the level of proficiency in the language and communicate to other people. Knowledge sharing helps members of organizations with more effective communication skills (Boisot, 1995). Moreover, sharing stories helps organizational members interpret, and understand each other's experiences. Thus sharing both the ideas and the story is able to increase the level of understanding of the members of the organization that results in an increased ability to anticipate and predict the activities of co-workers, thus facilitating the use of input from various members, and adapt to changing conditions. This also will impact on an increased efficiency gained through mutual awareness, and the decline of undesirable behavior in the organization.

Liao and Welsch (2005) state that all three dimensions of social capital (structural, relational, and cognitive social capital) does not stand alone but interlinked. Structural social capital is the basic form of social capital that are able to bring relational and cognitive social capital. Without networking, a company will not be able to establish a relational capital relationship, and it is impossible to share norms and values. In other words the higher the level of interaction the easier it will be to build relational capital, and more easily information, and resources exchanged in the network. While corporate activity is shaped by the norms and values of corporate networks, the strong social interactions and social ties within the corporate network play an important role in influencing and shaping the norms and values of the
network. Networks that share norms and beliefs will be better able to build inter-firm and intra-firm relational capital relationships.

According to Ellonen et al. (2008), product innovativeness is the key that determines the success of the company. Furthermore it is stated that relational capital is important in empowering innovativeness. Likewise Clegg et al. (2002) state that relational capital encourage product innovativeness, in which employees believe the company will respond and implement these ideas seriously, so that employees grow its ability to always find new ideas. Tanas and Sae (2007) state the relational capital has a positive role to the product innovativeness, and is able to encourage the exchange efficiently, under uncertainty and the limited opportunities. The relational capital also reduce costs through collective activities apart from that relational capital reduces the pressure on the company's competitors in the creation of product innovativeness. Based on these lengthy description, the hypotheses proposed in this study are:

H1. There is a positive and significant relationship between structural capital and product innovativeness in small and medium-sized wood-furniture firms in Central Java.

H2. There is a positive and significant relationship between cognitive capital and product innovativeness in small and medium-sized wood-furniture firms in Central Java.

H3. There is a positive and significant relationship between relational capital and product innovativeness in small and medium-sized wood-furniture firms in Central Java.

2.1. Conceptual Model

Based on the above description can be built conceptual model of product innovation improvement on SME Furniture Export Jepara. The model that became the theoretical framework of this research started from the development of three antecedent social capital (structural, cognitive and relational) by small and medium-sized wood-furniture firms, and the effects on product innovativeness.

![Conceptual Model](image)

**Figure 1** Conceptual Model

3. BRIEF OVERVIEW OF FURNITURE INDUSTRY IN JEPARA

Jepara is a regency in Central Java that is well known for its carved city. It can not be denied that Jepara people is experts of carving skills, especially in Indonesia. This carving skill has been inherited from generation to generation since centuries ago. The people of Jepara is characterized as open to outside culture (Susilo & Sya, 2016), including the acceptance of the carving culture that historically adopted from a Chinese descendant. The first sculpture in the form of sculptured carvings on a white stone located in the Mantingan Mosque which was built in 1559. This carving is the work of artist named Tji Wie Gwan, from China. Queen
Kalinyamat, the ruler of Jepara at that time confer a new name for Tji Wie Gwan become Sungging Badar Dwung. Sungging means carver, Badar equals stone and Dwung means carving tool. Then Sungging Badar Dwung was expected to teach sculpture to the surrounding community both in Jepara and Kudus.

Furniture carving industry which is currently developing into a reliable industry district of Jepara. The carving furniture industry is a pillar of regional economy, indicated by this sector's capability to absorb the employment in 2001 that was recorded as 85,250 workers.

This does not include the absorption of other sectors which depend on the furniture industry. The registered number of business units reaches 3,593 and about 15,000 pieces of home activities. Industry with base carved furniture evolves on different types of wood processing industry. Exports from the furniture and furniture from Jepara has penetrated 71 countries in 5 continents destination with an export value of IDR 2.4 trillion in 2001. Furniture industry in Jepara is not only to meet the needs of the domestic market, but also serve the international market. The forerunner of the industry has emerged since hundreds of years ago so that the concentration of the industry is done geographically by supporting industry known as cluster industry. Moreover, the furniture cluster in Jepara is the largest cluster in Indonesia. Jepara is able to produce an average of 400 containers of carved furniture for the export market every month. The capacity of this export will increase in around September of March to 600-700 containers.

The data from the Industry, Trade, Cooperatives and Investment Office of Jepara shows that the realization of furniture exports and various handicrafts has penetrated 78 countries. Of the hundreds of existing exporters, the export volume generated amounted to 52,642.5 tons with a value of 112.6 million US dollars.

The contribution of carving sector to regional GDP of Jepara is enormous. In last five years has been a shift share of GDP initially dominated by the agricultural sector, has now turned to the role of small and processing industry more dominant by giving a share of 32 per cent. So far, Jepara local government in cooperation with the business has been promoted by participating in various exhibitions, both local and international. The producers have also made product innovations by creating an increasingly scarce alternative teak wood. In addition to maintaining a classic design, the manufacturers have also begun to enter contemporary design models. It all supports the Jepara brand as a manufacturer of carving craft.

4. METHOD

Sampling
Population in this research is SME furniture in Jepara, Central Java. The reason for the selection of these samples as a population of this study is caused by Central Java’s statistic office (BPS) data in the figures of 2010 shows that the largest furniture contribution for Central Java was Jepara. The sampling method used was purposive sampling or sample aiming a sampling technique based on their specific purpose. There are conditions that must be considered in the use of this method are that the sampling should be based on certain characteristics which are the main characteristics of the population. Moreover, the subjects taken as samples are really the most characteristic subjects in the population.

The advantage of using this method is because according to the consideration of the researcher then the sample can represent the population well enough. In this study, the characteristics used for sampling are that SMEs have been in operation for more than 1 year, being an independent company is not a subsidiary, having engaged in product innovation development.
The number of respondents taken for the sample is 100 SMEs of furniture export in Jepara. This is in accordance with the opinion of Ferdinand (2002) which refers to the opinion of Hair (1998) which states that research using this SEM analysis tool, the minimum sample size is as many as 100 people.

**Measurements**

Ellonen et al. (2006) developed the dimension of relational capital that is based on the type of relationship that is contained in the company, namely lateral relations among employees, and the vertical relationship is the relationship between employees with employers. Both lateral and vertical relational capital each has three dimensions namely reliability, competence and benevolence relational capital. The dimension of relational capital developed by Ellonen et al. (2006) are as follows:

1. The belief that leaders and peers are always thinking about what is beneficial as a whole (benevolence relational capital)
2. The belief that leadership and colleagues always deliver on its promise (benevolence relational capital)
3. The belief that leadership and peers have a vision for the future (integrity relational capital)
4. The belief that leaders and peers have the capability to develop and learn continuously (integrity relational capital)
5. The belief that leadership and colleagues have technological competence (capability relational capital)
6. The belief that the leaders and colleagues have the appropriate expertise field (capability relational capital)

Ellonen et al. (2006) found that organizational relational capital can be built through the lateral and vertical interpersonal relationships within the organization. According to Levin and Cross (2004) relational capital can be built through closeness of interpersonal relationships within the organization. The closeness of this relationship becomes the main benchmark for social capital structural. The structural dimension of social capital to be developed to build relational capital in the SME export furniture Jepara. The structural dimension of social capital was adopted from the items developed by Krackhardt and Hanson (1993), which is then forwarded by Levin and Cross (2004). The dimensions are:

1. Employees have a close relationship with other employees.
2. Communication between employees work well
3. Employees have a close relationship with their superiors
4. Employees can learn from the leadership of the closeness of the relationship

Adler and Kwon (2002) state that the core of cognitive social capital is solidarity which is the degree to which members of the group subordinated their personal needs for achieving the objectives of the group. Solidarity eliminates disagreements, open discussions and stimulates communication frequencies. This understanding of solidarity is the basis for the development of the dimensions of solidarity developed by Adler and Kwon (2002). The dimension of solidarity Adler and Kwon (2002) is in accordance with the conditions of SMEs exporting fine furniture Jepara and Surakarta, therefore the dimension will be used as a measure of solidarity in the development of relational capital. The dimensions are:
1. Common goals are more important than personal needs
2. Shared decisions must be made despite differences of opinion
3. Shared problem solving will be better than solving individual problems
4. Company internal communication runs efficiently

The product innovativeness is often related to the perception of novelty, authenticity, or uniqueness of the product. This perception of novelty can come from consumers and companies. A product may be considered new by consumers when consumers find new benefits from the product. Consumer perceptions of product novelty include attributes, benefits, etc. The company's perception of product novelty includes environmentally friendly, technology, etc. The innovativeness is often defined as the ability of the product to be perceived as a new and useful product by the consumer. The dimensions of innovativeness of the product that is used as a measure of product innovativeness of SME export Jepara furniture are:

1. Ability to produce products that are superior to competitors
2. The ability to produce unique products
3. Ability to produce products that meet customer needs
4. The ability to produce classic and elegant products

Data Analysis

Data were collected by using closed questionnaire method by giving questionnaire or questionnaire to respondent. Data were tested with normality, reliability and validity tests. The method chosen to analyze the data should be in accordance with the research pattern and the variables to be studied. In this study, multiple regression test of the SPSS statistical software package used in the development of models and hypothesis testing.

5. FINDINGS

Descriptive Statistics, Validity and Reliability

The statistic description of the variables, in terms of minimum, maximum, mean and standard deviation is presented in table 1.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std.Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural</td>
<td>100</td>
<td>5.00</td>
<td>3pm</td>
<td>11.7900</td>
<td>2.63349</td>
</tr>
<tr>
<td>Cognitive</td>
<td>100</td>
<td>8:00</td>
<td>20:00</td>
<td>16.2100</td>
<td>2.47531</td>
</tr>
<tr>
<td>Relational</td>
<td>100</td>
<td>11:00</td>
<td>30.00</td>
<td>24.6200</td>
<td>3.91005</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>100</td>
<td>8:00</td>
<td>25.00</td>
<td>19.9400</td>
<td>3.14248</td>
</tr>
</tbody>
</table>

The result of the validity test shows that the correlation of each indicator to the total value of latent variable shows significant result that is <0.05. This indicates that the data obtained in the field is feasible for use in model testing developed in this study. Furthermore, the reliability test results showed that the indicator variable that is tested is reliable because each indicator has a value of Cronbach Alpha > 0.60.
Table 2 Validity and Reliability

<table>
<thead>
<tr>
<th>Item</th>
<th>N of Items</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural</td>
<td>3</td>
<td>.920</td>
<td></td>
</tr>
<tr>
<td>ST1</td>
<td></td>
<td>.549</td>
<td></td>
</tr>
<tr>
<td>ST2</td>
<td></td>
<td>.575</td>
<td></td>
</tr>
<tr>
<td>ST3</td>
<td></td>
<td>.560</td>
<td></td>
</tr>
<tr>
<td>Cognitive</td>
<td>4</td>
<td>.780</td>
<td></td>
</tr>
<tr>
<td>CG1</td>
<td></td>
<td>.561</td>
<td></td>
</tr>
<tr>
<td>CG2</td>
<td></td>
<td>.572</td>
<td></td>
</tr>
<tr>
<td>CG3</td>
<td></td>
<td>.513</td>
<td></td>
</tr>
<tr>
<td>CG4</td>
<td></td>
<td>.554</td>
<td></td>
</tr>
<tr>
<td>Relational</td>
<td>6</td>
<td>.936</td>
<td></td>
</tr>
<tr>
<td>RL1</td>
<td></td>
<td>.481</td>
<td></td>
</tr>
<tr>
<td>RL2</td>
<td></td>
<td>.670</td>
<td></td>
</tr>
<tr>
<td>RL3</td>
<td></td>
<td>.661</td>
<td></td>
</tr>
<tr>
<td>RL4</td>
<td></td>
<td>.733</td>
<td></td>
</tr>
<tr>
<td>RL5</td>
<td></td>
<td>.751</td>
<td></td>
</tr>
<tr>
<td>RL6</td>
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<td>.690</td>
<td></td>
</tr>
<tr>
<td>Innovativeness</td>
<td>5</td>
<td>.894</td>
<td></td>
</tr>
<tr>
<td>IN1</td>
<td></td>
<td>.711</td>
<td></td>
</tr>
<tr>
<td>IN2</td>
<td></td>
<td>.566</td>
<td></td>
</tr>
<tr>
<td>IN3</td>
<td></td>
<td>.561</td>
<td></td>
</tr>
<tr>
<td>IN4</td>
<td></td>
<td>.507</td>
<td></td>
</tr>
<tr>
<td>IN5</td>
<td></td>
<td>.558</td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis Testing

The test results of this model also indicate that all hypotheses proposed are significant. This can be seen from the results of the critical ratio $> 1.96$ with $\alpha = 5\%$, and the probability or significance value of $<0.05$. The acceptance of the hypothesis shows that the improvement of product performance can be done through social capital development and innovativeness of SMEs furniture export products of Jepara.

Table 3 Hypothesis Testing

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>7.415</td>
<td>2.029</td>
<td>3.655</td>
</tr>
<tr>
<td></td>
<td>Structural</td>
<td>.140</td>
<td>.124</td>
<td>.117</td>
</tr>
<tr>
<td></td>
<td>Cognitive</td>
<td>.195</td>
<td>.144</td>
<td>.153</td>
</tr>
<tr>
<td></td>
<td>Relational</td>
<td>.313</td>
<td>.079</td>
<td>.390</td>
</tr>
</tbody>
</table>

Predictors, (Constant), Structural, Cognitive, Relational

Dependent variable: product innovativeness
The first hypothesis states the influence of social structural capital on product innovativeness. The statistical test results prove that this hypothesis is rejected, indicated by the Beta value .117, and the significance level of 0.261, or above the required significance threshold of 0.05. The result of the statistical test on the second hypothesis which stated that the influence of social capital of cognitive on the innovativeness of the product shows the value of beta value .117, and the level of significance of 0.261, or above the required significance level of 0.05. Thus, the second hypothesis is rejected.

The statistic test result on the third hypothesis shows the beta value of .117, and the level of significance of 0.261, or above the required level of 0.05. Thus, the third hypothesis which states that the positive and significant impact of social relational capital on product innovativeness is accepted. The acceptance of third hypothesis in this study that is a positive influence on the relational capital of product innovation means that the results of this study support the results of research and Saparito Carolis (2006) and Tanas & Sae (2007).

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.545 a</td>
<td>.297</td>
<td>.275</td>
<td>2.67524</td>
</tr>
</tbody>
</table>

Predictors, (Constant), Structural, Cognitive, Relational
Dependent variable: product innovativeness

Furthermore, to test the influence of independent variable or predictor (relational, structural, cognitive) on dependent variable of innovativeness, then tested the coefficient of determination (R square). Use of adjusted R-square is a square R generalize to the population, because there are elements in the population estimates it (http://widhiarso.staff.ugm.ac.id ). In this study, it is used adjusted R square value as the basis for assessment. Based on statistical test, the coefficient of determination is 0.275. This indicates that the independent variable is able to estimate the value of product innovation variable of 27.5 per cent, while the rest is predicted by the variables outside this study.

6. DISCUSSION

The development of relational capital can be done by empowering the solidarity which the common interest will be more attention than the interests of individuals, and the empowerment of structural social capital containing the relationship between superiors and subordinates that are perceived to be able to facilitate good communication among employees, and between employees and employers. Relational social capital has the capability to assist SMEs of Jepara furniture in many ways. One of the most efficient ways for Jepara's furniture industry to succeed is to communicate directly with their employees as partners. Leaders can express high level of relational capital to their employees. This high confidence is demonstrated by the leadership ability to discuss managerial issues, markets and technological developments. Thus, relational capital can reduce transaction costs.

Internal relationships can be well established by building relational capital. Relational capital is built through kindness. Thus, there must be a belief that goodness is rewarded with kindness. Relational capital is also established through openness and a controlled family system. In a sense, employees can have the initiative, but their needs must be fulfilled. Furthermore, the supervisors must ensure that the relational capital does not change shape into opportunistic behavior.
7. CONCLUSION

From the results of data analysis, it can be concluded that the confidence in the ability, kindness and integrity of SMEs of Jepara furniture can be built through the development of internal relational capital between employees and leaders and between employees themselves. This relationship will encourage more smooth communication and the growth of relational capital both vertical and horizontal. Relational capital is not only built by structural relations but also a growing sense of solidarity. A sense of wanting to share and the belief that common interests take precedence over individual interests, fostering high relational capital both among employees and between employees and leaders. The relational capital built will be able to cultivate the product innovativeness. Relational capital is able to move the innovation of products that are the entrepreneurship capital of SMEs of furniture in Jepara, where this product innovativeness will encourage SMEs furniture to create innovative products that can improve the performance of the company's products.

REFERENCE


[29] http://widhiarso.staff.ugm.ac.id/wp/adjusted_r_squared_spss/


