THE MEDIATING ROLE OF CREATIVITY ON THE EFFECT OF KNOWLEDGE SHARING ON SUSTAINABLE COMPETITIVE ADVANTAGE

Nur Wening[1,*], Bambang Moertono[2] and Muafi[3]

Abstract

This study aims to analyze and strengthen the influence of knowledge sharing on the sustainability of competitive advantage, as well as to analyze the role of creativity as a mediator. The knowledge sharing variable in this study includes both tacit and explicit knowledge sharing. This study used data collected from 384 respondents belonging to small and medium enterprises in the Special Region of Yogyakarta (DIY) and Central Java, Indonesia. The research was conducted for 4 months from July through October 2021. The data acquisition instruments were in the form of questionnaires and interviews, with data analysis utilizing the Partial Least Squares (PLS) method. The results of the study found that sharing of both tacit and explicit knowledge had a direct effect on creativity. Other findings suggested that creativity has a direct influence on a sustainable competitive advantage. Other results show that tacit knowledge sharing had a direct effect on sustainable competitive advantage but not through creativity as a mediator. Meanwhile, explicit knowledge sharing had a direct effect on sustainable competitive advantage as well as through creativity as a mediator. The results of the study can be used as a reference for small and medium sized business actors, especially for increasing the business' competitive advantage, and for other decision makers.

Keywords: tacit knowledge sharing, explicit knowledge sharing, sustainable competitive advantage, creativity, small medium enterprises.

1. INTRODUCTION

Rapid global social changes make knowledge obsolete, therefore knowledge must be continuously updated through the learning process and requires creativity to produce something new, different, and even unique. Knowledge has a very big influence in determining the progress of an organization. Davenport & Prusak (1998) explained that knowledge management is the process of translating the lessons learned, which are in a person's mind/self, into information that can be used by everyone. Knowledge management is a discipline that treats intellectual capital as a managed asset (Honeycutt, 2000). Knowledge management that is carried out effectively and efficiently will enable the conversion of knowledge from tacit

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knowledge to explicit knowledge through socialization, externalization, internalization, and combinations of these (Argote, McEvily, & Reagans, 2003).

Business actors with a high ability to generate new and useful ideas are more likely to create creativity (Woodman, Sawyer & Griffin, 1993; Asef Riyadi,2014), which in turn will contribute to the group and organizational creativity (Somech & Zahavy, 2013). Tierney & Farmer (2002) suggested that to maintain organizational growth and success, required creativity, and could be achieved by developing creative self-efficacy. Creativity is the generation of novel and useful ideas (George & Jones, 2012). Zimmerer (1996) argued that creativity is the ability to develop new ideas and find new ways to solve problems and face opportunities. Colquitt, LePine & Wesson (2015) defined creativity as the capacity to generate novel and useful ideas and solutions. Henard & Szymanski (2001) showed that creativity and innovation are used as a strategy to increase product value, which is a key component of successful business operations, bringing an organization to a competitive advantage. This is supported by studies conducted by Johanessen & Olsen, 2009; Ren, Xie & Krabbendam, 2010). While, Rodriquez, Ricart & Sanchez (2002); Sunarsih (2015); Nuryanti & Nurjaman (2017); Tanti (2020); Arlia Azzahra, Cika, Suyanto & Darmayanti (2021) stated that creativity is very influential on business progress, including increasing business competitiveness. Few previous studies have examined the role of creativity as a mediator in the effect of tacit knowledge sharing and explicit knowledge sharing on generating a sustainable competitive advantage. Previous research has investigated the direct effect of knowledge sharing on the generation of a sustainable competitive advantage (Kankanhalli, Tan & Wei, 2005; Fey & Furu, 2008; Fang, Jiang, Makino & Beamish, 2010). This study examines the role of tacit knowledge sharing and explicit knowledge sharing used to achieve a sustainable competitive advantage directly and indirectly through creativity as a mediator. This study was conducted with the object of small and medium enterprises in the Special Region of Yogyakarta and Central Java.

2. LITERATURE REVIEW

Resource Based View Theory focuses on understanding the potential of organizational resources and capabilities (Coulter, 2002). The purpose of this theory is to explain how a company's internal resources can be used to achieve a sustainable competitive advantage. However, not all company resources are factors that have the potential to make the company achieve a sustainable competitive advantage (SCA). According to Barney (1991), to achieve a competitive advantage, company resources must have four important criteria including valuable, rare, imperfectly imitable, and irreversible. A Resource-Based View of a company is defined as a set of strategic assets that are rare, valuable, imperfectly imitable and non-substitutable (Meso, et al., 2000).

2.1 Sustainable Competitive Advantage (SCA)

A sustainable competitive advantage is a condition that places the company in a profitable or superior business position for several years. Hoffman (2000) stated that SCA is a sustainable advantage because of several unique value creation strategies that are not simultaneously carried out by current potential competitors. The sustainable competitive advantage is influenced by creativity and innovation (Ricart, Rodríguez & Sanchez, 2002; Johanessen & Olsen, 2009; Ren, Xie & Krabbendam, 2010). Meanwhile Hitt, Ireland & Hoskisson (1995); and Hitt, Ireland, Camp & Sexton (2001) stated that a sustainable competitive advantage will be achieved when companies implement value creation strategies based on unique resources, capabilities, and competencies.

The competitive advantage comes from the value or benefits created by the company for consumers when consumers see from the price offered for a product that has more value than they want or expect (Samsir, Nursanti & Zulfadil, 2017). A competitive advantage is defined as an organization's ability to create a defensive position against its competitors (Li, Nathan, Nathan & Rao, 2006). This consists of capabilities that enable an organization to differentiate itself from its competitors and are the result of critical management decisions (Tracey, Vonderembse & Lim, 1999; Li, Nathan, Nathan & Rao, 2006). The definition was also developed by Barney (1995) which states that SCA is a resource and capability in a diverse and immobile organization, which also uses four attributes or empirical indicators as a basis, as follows: value, rareness, imperfect imitability, and organization to be attracted and utilized as a source of SCA.

This study uses the seven indicators referring to the conditions of the research place and also the results of research by Awaad, Al Khattab & Anchor (2013); Li & Liu (2014); Stefanikova & Masarova (2014); Gautam & Ghimiee (2016); Li & Liu (2018). Using indicators of commitment and ability to provide satisfaction to customers (SCA1), ability to innovate (SCA2), ability to survive in the face of risk (SCA3), use of technology (SCA4), and commitment to achieve goals at any cost (SCA5).

2.2 Knowledge Sharing (KS)

The existence of knowledge management in the current era of information and technology is like power generation energy in the industrial era. Davenport & Prusak (2000) stated that knowledge is a combination of experience, values, and contextual information that provides a framework for evaluating new information and experiences. Meanwhile, Alavi & Leidner (1999) stated that knowledge management is the development of an organization's ability to acquire, organize and disseminate knowledge throughout the organization to increase effectiveness, efficiency, and competitiveness. Davenport & Prusak (1998) stated that knowledge management is the activity of seeking, storing, sharing, and using knowledge. The knowledge management activity cycle consists of several stages of activities known as SECI, including socialization, externalization, combination, and internalization (Nonaka, 1994). Knowledge is defined by Wenig (1996) as an understanding of cognitive system processes, so that information is not knowledge but is communicated through cognition. Knowledge is known as the main source of creating a sustainable competitive advantage for organizations (Fang, Jiang, Makino, and Bearnish, 2010; Fey & Furu, 2008; Kankanhalli, Tan & Wei,2005).

Knowledge management is divided into tacit knowledge and explicit knowledge. Explicit knowledge is easy to document, archive, and code. Explicit knowledge is the knowledge that can be found physically; it is easily communicated, easily learned by others, and can be expressed in words or numbers, being distributed in the form of data, formulas, specifications, and manuals. Meanwhile, tacit knowledge is this knowledge that is personal in nature; it is difficult to formulate and therefore difficult to communicate and disseminate to others.

Knowledge sharing is a specific set of behaviors that involve exchanging relevant data or knowledge to collaborate with others in developing new ideas and in implementing policies (Zhang, Yu & Li, 2016; Zhang, Li & Zheng, 2017; Zhang, Sun, Lin, 2020). Knowledge sharing is the extent to which employees share knowledge with colleagues, contributing to the organization (Argote, 2000; Argote, McEvily & Reagans, 2003; Ryu, Ho & Han, 2003). The dimensions of knowledge sharing used in this study include:

a) Explicit knowledge using SECI dimensions (socialization, externalization,

coordination, and internalization) from Polanyi (1966) and Hourlay (2004).

b) Tacit knowledge using the dimensions of Polanyi (1966) and Hourlay (2004), which include experience, personal interaction, community, and the job environment.

2.3 Creativity (C)

Creative thinking is needed by companies when facing a crisis. Leaders should not only think business as usual, but dare to take reforming steps to improve the conditions which have been affected by the crisis. In general, the creative person, according to a humanistic perspective, has the consciousness and the abilities to address crises in transformative ways (O'Hara, 2017). The creative process is a mental process in which past experiences are recombined along with some alterations, in such a way that new patterns, new configurations, new rules, and better solutions that may be needed can emerge (Sya'roni & Sudirham, 2012). Creativity and innovation are required to run a sustainable business. In this case, a strategy is needed to run the business as efficiently as possible and to develop the business, one of which is through product innovation. SMEs are seen as a "going concern" that exists and grows not for the sake of a moment, but for long term sustainability.

This study uses the research dimensions of Rhodes (1961) as cited in Tsurusaki, Tzou, Conner, Guthrie (2017), which consists of four dimensions referred to as the four P's of Creativity, namely the Person, Process, Press, and Product dimensions. Person includes personality traits or creative achievements (Metwally, et., al., 2017) and refers to personality, intellect, temperament, physique, habits, attitudes, self-concepts, or value systems (Rhodes, 1961; Tsurusaki, et.,al., 2017). Process refers to the skills related to creativity including motivation, perception, learning, thinking, and communication, while Press is interpreted as the relationship between human beings and their environment including a secure environment with minimum administrative or financial intervention, an organizational culture that makes it easy for people to create and discover independently, rewards for performance to support intrinsic motivation, managerial willingness to take risks in the targeted areas of creativity and providing training to enhance creativity (Geiss.1988; Metwally, et.,al., 2017), while the product is the organization of ideas, thoughts, and associative feelings with the power of imagination referring to physical objects, ideas, systems, services, and processes (Cropley, 2016).

2.4 The Relationship between Knowledge Sharing and Creativity

Tacit knowledge is the knowledge that is still in the minds of company leaders, it can be in the form of experiences, conversations between individuals, dialogue, formal and informal discussions, business actors' intelligence, decision-making mechanisms, or thoughts. Nonako &Takeuchi (1995) stated that the fundamental reason for Japanese SMEs to be successful was because their skills and experience involved the creation of knowledge management. Knowledge creation is achieved through the imposition of a synergistic relationship between tacit and explicit knowledge. The results of studies conducted by Kankanhalli, Tan & Wei (2005); Fey & Furu (2008); Fang, Jiang, Makino & Bearnish (2010); and Mertayasa, Agustini, and Divayana (2017) showed a significant effect of knowledge sharing on creativity. Knowledge management is the formalization of and access to experience, knowledge, and expertise that creates new capabilities, enabling superior performance, encouraging creativity, and increasing customer value (Khan, 2012). Knowledge management consists of tacit knowledge and explicit knowledge. Liao, Fei, & Liu (2008); Liao, Chen, Hu, Chung, & Liu, C.L. (2017); and Liao & Chen (2018) stated that

knowledge sharing has a positive effect on employee creativity.

Some suggestions state that tacit knowledge in organizations must be converted into explicit knowledge so that this type of knowledge can be utilized through socialization processes and informal meetings (Nonaka & Takeuchi, 1995). Tacit knowledge sharing in SMEs can be carried out face-to-face or through social interactions (Egbu, Hari, & Renukappa, 2005); the application of tacit knowledge sharing can be conducted anywhere as it is informal and without bureaucracy (Egbu et al., 2005). Leonard & Sensiper (1998) stated that tacit knowledge is not always converted into an explicit form but overall tacit knowledge can realize creativity and innovation. Thus it is hypothesized that:

H1: Tacit knowledge sharing has a significant positive effect on creativity.

H2: Explicit knowledge sharing has a significant positive effect on creativity.

2.5 The Relationship between Creativity and a Sustainable Competitive Advantage

Amelia, Jumini & Khoiri (2020); and Hasan, Harinawati, Sufi & Arifin (2020) stated that creativity has a significant effect on the business sustainability of millennial SMEs. To support business sustainability, several variables influence creativity, innovation, venture capital, and the application of product diversification (Johanessen & Olsen, 2009; Ren, Xie, & Krabbendam, 2009; Azzahra, Suyanto, & Darmayanti, 2021). Meanwhile, Ricart, Rodriquez, & Sanchez (2002); Nuryanti and Nurjaman (2017); and Sunarsih (2015) stated that creativity is very influential on business progress, including increasing business competitiveness. The following hypothesis was set accordingly:

H3: Creativity has a significant positive effect on sustainable competitive advantage.

2.6 The Relationship between Knowledge Sharing and a Sustainable Competitive Advantage

Companies that are effective in acquiring knowledge will be able to create and maintain a competitive advantage in a knowledge-based economy, while others will have difficulty maintaining their competitive position (Khan, 2012; Castro, Guzman, & Aguilar,2018). Knowledge is becoming one of the most important sources of competitive advantage available to organizations in the twenty-first century (McFadyen & Canella, 2004; Chuang, 2004; Nguyen & Neck, 2008; Zaied, 2012). To obtain the maximum benefit from the knowledge possessed and to find out the knowledge that must be possessed, companies must manage knowledge through knowledge management. Lee (2016) concluded that knowledge management has a significant influence on technological innovation and competitive advantage, while technological innovation also has a significance influence on the competitive advantage.

Knowledge management is divided into tacit and explicit knowledge. Most of the knowledge contained in SMEs is tacit (Bayraktaroglu, Calisir, & Baskak, 2019). However, tacit knowledge in SMEs is difficult to convert into an explicit form. Therefore, sharing done on tacit knowledge will help in improving performance. Tacit knowledge becomes a competitive advantage that is difficult to imitate and must be converted into core competencies through knowledge transfer or sharing (Wang & Wang, 2008).

H4: Tacit knowledge sharing has a significant positive effect on the sustainable competitive advantage.

H5: Explicit knowledge sharing has a significant positive effect on the sustainable competitive advantage.

2.7 The Mediating Role of Creativity on The Effect of Knowledge Sharing on Sustainable Competitive Advantage

Marcelo, Claudio, Jimenez & Cegarra (2016); Al-Sa'di, Abdallah & Dahiyat (2017); Samsir, Nursanti & Zulfadil (2017); Eren, Ozdemirt Abdulkhoshim (2017); and Muhammed, Ibrahim, Eltayab & Abker (2019) found that creativity mediates the influence of knowledge sharing on sustainable competitive advantage. Knowledge management is recognized as an important weapon to maintain a competitive advantage and improve performance (Zaied, Hussein, & Hassan 2012). Not many studies have been found that examine the role of creativity as a mediator.

H6: Creativity mediates the effect of tacit knowledge sharing on sustainable competitive advantage.

H7: Creativity mediates the effect of explicit knowledge sharing on sustainable competitive advantage.

Based on previous studies and corroborating theories, the framework of this research is shown in Figure 1.

3. RESEARCH METHODS

3.1 Participants of the Study

The owner or manager of SMEs in Yogyakarta (DIY) and Central Java, Indonesia were chosen as respondents. The sampling method utilized purposive sampling with criteria of having at least 5 employees, and operating for at least 1 year in Yogyakarta (DIY) or Central Java. The main purpose of using purposive sampling was to find respondents that matched the criteria specifically determined for the study. In addition, the purpose of purposive sampling is to explain a problem clearly by generating a representative sample that has adequate representative value, thus allowing the main research objectives to be fulfilled.

Data search was carried out for approximately 4 months in the Yogyakarta (DIY) and Central Java regions using a questionnaire that was distributed directly or via a google form. Data collection was carried out for approximately 4 months from July through October 2021. The appropriate sample size was obtained after searching for data related to the criteria for acceptance in the sample.

3.2 Measurement Variables and Analysis Methods

3.2.1 Measurement Variables

The study used four variables, including the exogenous variables of tacit knowledge sharing and explicit knowledge sharing, the mediating variable of creativity, and endogenous variable of sustainable competitive advantage. The mediating variable is included to help conceptualize

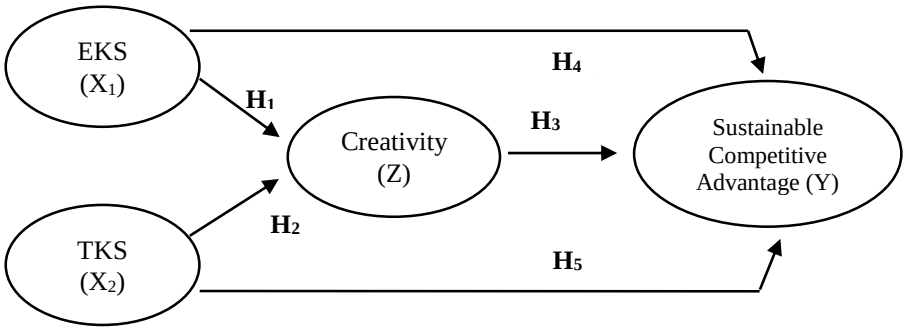


Figure 1 Research Model

Note: The mediating effect of creativity on sustainable competitive advantage (H_6 & H_7) is not labeled.

and explain the relationship between the independent variable and the dependent variable (Sekaran & Bougie, 2013). The dimensions of knowledge sharing used in this study include:

a) Explicit knowledge, adopting the SECI dimensions (socialization, externalization, coordination, and internalization) from Polanyi (1966) and Hourlay (2004).
b) Tacit knowledge, adopting Polanyi (1966) and Hourlay's (2004) dimensions of experience, personal interaction, community, and job environment.

The variable of creativity uses the dimensions of Rhodes (1961), consisting of four dimensions referred to as the four P's of Creativity, namely Person, Process, Press, and Product. Person includes personality traits or creative achievements (Metwaly, et., al., 2017) and may refer to personality, intellect, temperament, physique, habits, attitudes, self-concept, or value systems (Metwaly, et., al., 2017). Process refers to the skills related to creativity, including motivation, perception, learning, thinking, and communication. Press may be interpreted as the relationship between people and their environment including a secure environment with minimum administrative or financial intervention, an organizational culture that makes it easy for people to create and discover independently, rewards for performance to support intrinsic motivation, managerial willingness to take risks in the targeted areas of creativity, and providing training to enhance creativity (Metwaly et al., 2017). Meanwhile, Product refers to the organization of ideas, thoughts, and associative feelings, with the power of imagination referring to physical objects, ideas, systems, services, and processes (Cropley, 2016).

The sustainable competitive advantage indicators refer to the conditions of the research place and are adopted from Awaad, Al khattab & Anchor (2013); Li & Liu (2014); Stefanikova & Masarova (2014); Gautam & Ghimiee (2016); and Li & Liu (2018). The indicators of commitment and ability to provide satisfaction to customers (SCA1), ability to innovate (SCA2), ability to survive in the face of risk (SCA3), use of technology (SCA4), and commitment to achieve goals at any cost (SCA5) were used in this study.

3.2.2 Analysis Methods

An SEM approach was used to test the hypotheses in this study based on a Partial Least Squares (PLS) analysis. PLS is a variant-based SEM model which is an alternative approach that shifts from a covariance-based to a variance-based SEM approach (Hair, Ringle & Sarstedt, 2014-a). PLS is a powerful analytical method and is often referred to as soft modeling as it eliminates the assumption of Ordinary Least Squares regression, so that the data must be normally distributed, multivariate, and have no multicollinearity problems between the exogenous variables (Hair et al., 2014 -a). Fornell and Bookstein (1982) stated that PLS avoids two serious consequences of SEM solutions based on imprecise covariances and indeterminate factors. The advantages of PLS include: (1) the PLS algorithm is not limited to reflexive relationships between indicators and latent variables but can also be used for formative relationships, (2) PLS can be used for relatively small sample sizes, (3) PLS can be used for complex modeling with very good results, (4) PLS can still be used when the distribution is skewed (Hair, Sarstedt, Hopkins & Kuppelwieser, 2014-b).

This study uses PLS, as it is an analytical method that can be applied to all data scales, it does not require many assumptions and can be used as confirmation of the theory.

4. RESULTS

4.1. Descriptive Analysis

The business actors who became respondents in this study included 384 people with a male composition of 46%, and a predominance of ages between 36 to

45 years. The education level of the majority was at middle school level (56%). Most of the businesses owned were small businesses (84%) with a business age of 6 to 10 years (43%). The results of the descriptive statistics analysis are shown in Table 1.

4.2 Outer Model Test Results

4.2.1 Convergent validity

The convergent validity value for each variable is as follows: knowledge sharing uses explicit knowledge sharing dimensions with indicators: E1, E2, E3, and E4 with validity values of 0.777; 0.795; 0.799 and 0.820 respectively, while tacit knowledge sharing with indicators T1, T2, T3 and T4 yielded validity values of 0.730; 0.703; 0.776; and 0.717 respectively. The Person dimension of the creativity variable yielded values of 0.801; 0.782; 0.772; 0.820; 0.728; 0.766; 0.756; and 0.732, while the Process dimension revealed values of 0.770; 0.812; 0.798; 0.721; and 0.812. Results for Press included 0.762; 0.814; 0.777; 0.723; and 0.728, and the Product dimension had values of 0.767; 0.734; 0.812; 0.801; and 0.782. The advantages of sustainable competitiveness indicated by dimensions SCA1, SCA2, SCA3, SCA4 and SCA5, generated convergent validity results of 0.809; 0.697; 0.911; 0.774 and 0.842 respectively. The recommended loading value is to be greater than 0.70. However, if the model is still in the development stage, a loading indicator value of 0.60 is tolerated (Sekaran & Bougie, 2013). The study results show that the indicators for the variables of knowledge sharing, creativity, and sustainable competitive advantage had values higher than 0.60, indicating that the value of the outer model possesses convergent validity.

Table 1 Description of Respondents

Profile of Respondents	Frequency	%
1. Gender		
a. Male	175	46%
b. Female	209	54%
2. Age of owner/manager		
a. <25 years	8	1%
b. 26 - 35 years	88	23%
c. 36 - 45 years	154	40%
d. 46 - 55 years	126	34%
e. >56 years	8	2%
3. Type of business		
a. Small	323	84%
b. Medium	61	16%
4. Business Age		
a. <5 years	64	17%
b. 6 - 10 years	167	43%
c. > 11 years	153	40%
5. Education		
a. Elementary school	46	12%
b. Middle school	215	56%
c. Bachelor	111	29%
d. Others (master / doctorate)	12	3%

4.2.2 Average Variance Extracted (AVE)

Average Variance Extracted is a discriminant validity requirement, which indicates the variance or diversity of manifest variables owned by the latent construct. The minimum value to be declared as having reliability is 0.5 (Fornell & Larcker, 1981; and Hair, Hult, Ringle, & Sarstedt, 2014) meaning that the latent variable can explain the average of more than half the variance of the indicators. Thus, the greater the variance or diversity of the manifest variables that can be contained by the latent construct, the greater the representation of the manifest variable on the latent construct, showing that the variance value for each indicator in the construct captured by the variable is more than the variance caused by measurement error. In summary, the AVE value for each research variable is shown in Table 2.

The results shown in Table 2 indicate that each variable used has variation of the manifest variable that is owned by the latent construct. The greater the diversity of manifest variables that can be accommodated by the latent construct, the greater the representation of the manifest variable in the latent construct. All AVE values are greater than 0.50 so there is no convergent validity problem in the tested model.

4.2.3 Composite Reliability

The expected value of composite reliability is higher than 0.70 where this condition illustrates that each variable indicator has high consistency in measuring latent variables. The results show that each construct has a composite reliability value higher than 0.70 indicating high consistency of the construct in measuring the latent variable. In summary, the results of the composite reliability analysis are shown in Table 3.

The results shown in Table 3 state that there is no problem with the reliability for any of the research variables.

4.3 Inner Model (Hypothesis Testing)

The inner model test is called the PLS hypothesis test. This test includes testing the importance of direct and indirect effects as well as measuring the effect of exogenous variables on endogenous variables. The t-state test of the least squares analysis model (PLS) was carried out using a direct effect test with the help of the Smart PLS 3.0 program. Rules of thumb used in this study are that the t-statistic > 1.96 with a significance level and associated p-value of 0.05 (5%) and a

Table 2 Average Variance Extracted Results

Construct	AVE
Knowledge sharing	
- Tacit knowledge	0.544
- Explicit knowledge	0.610
Creativity	0.656
Sustainable Competitive Advantage	0.642

Table 3 Composite Reliability

Construct	Composite Reliability
1. Knowledge Sharing	
a. Tacit Knowledge sharing	0.877
b. Explicit Knowledge Sharing	0.788
2. Creativity	0.904
3. Sustainable Competitive Advantage	0.915

positive beta coefficient.

Table 4 contains the bootstrap strategy, R Square and sense test scores.

Meanwhile, the R^2 value of the PLS model for each latent variable includes: creativity = 0.794 and sustainable competitive advantage = 0.919. These results indicate that creativity is explained by tacit and explicit knowledge sharing by 79.4% while the remaining variation (21.6%) is explained by other variables outside the study. Meanwhile, the R-square for sustainable competitive advantage shows that 91.9% of variance in this variable is explained by tacit knowledge sharing, explicit knowledge sharing and creativity, while 8.1% is explained by other variables outside the research model.

In the PLS-SEM analysis, the value of the direct effects is also called the path coefficient (original sample). Path coefficients between constructs are used to see the significance and strength of the relationship between variables and also to test hypotheses. Path coefficient values range from -1 to +1. The closer the path coefficients get to the +1 value, the stronger the relationship between the two constructs. A relationship that is closer to -1 indicates that the relationship is negative (Sarstedt et al., 2017). The original sample is used to see the direction of the hypothesis testing, if the original sample shows a positive value it means the direction is positive, and if the original sample value is negative it means the direction is negative.

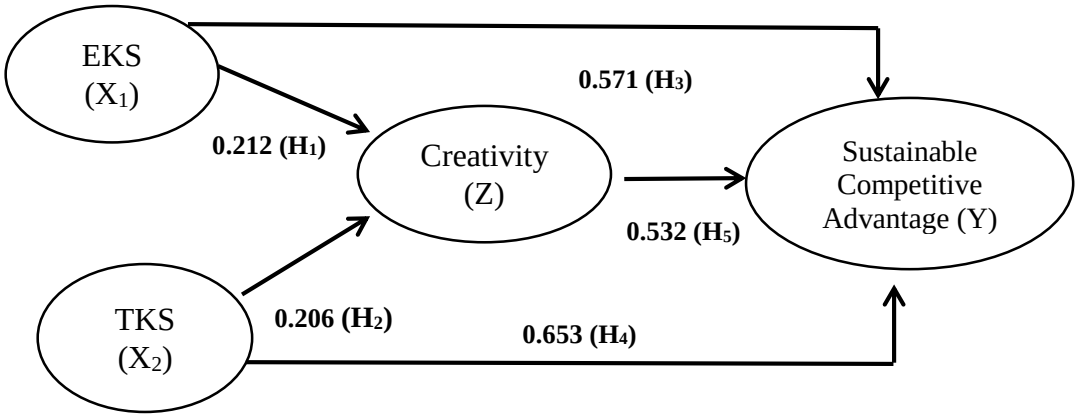
The results of the hypothesis testing are shown in Table 4, there are five direct relationship paths that have a significant effect as p-values <5%, including: EKS on C with a path coefficient of 0.212 and t_{value}=1.979, indicating that explicit knowledge sharing has a significant effect on creativity, therefore **H_1: supported**; TKS on C with a path coefficient value of 0.206 and t_{value}= 2.196, indicating that tacit knowledge sharing has a significant effect on creativity, meaning **H_2: supported**; EKS on SCA where the path coefficient is 0.571 and t-statistic = 5.103, indicating **H_3:supported**. The effect of TKS on SCA with a path coefficient of 0.653 and t_{value} = 8.173 indicates that **H_4: supported.** Meanwhile the effect of C towards SCA, with path coefficient = 0.532 and t_{value} = 4.494 indicates **H_5: is supported**. In summary, the results of the hypothesis testing are shown in Figure 2.

The results of the indirect effect of TKS on Sustainable Competitive Advantage (SCA) through Creativity has a negative coefficient = -0.014 (H6) with t-statistic = 0.749 and p-value = 0.454, indicating that

Table 4. Path Coefficient Results

Sign Test	Original Sample (O)	Standar Deviation (STDEV)	t-stat (lO/STDEVl)	P-values	Results
EKS to C (H_1)	0.212	0.126	1.979	0.029	S
TKS to C (H_2)	0.206	0.094	2.196	0.046	S
EKS to SCA (H_3)	0.571	0.112	5.103	0.000	S
TKS to SCA (H_4)	0.653	0.080	8.173	0.000	S
C to SCA (H_5)	0.532	0.018	4.494	0.000	S
TKS to SCA mediated by C (H_6)	-0.014	0.019	0.749	0.454	NS
EKS to SCA mediated by C (H_7)	0.294	0.081	3.618	0.000	S

Notes: S : supported
NS : not supported



H_6: **-0.014(NS)** & H_7: **0.294 (S)**

Figure 2. Research Test Results.

TKS negatively effects SCA through Creativity as a mediator, but that this relationship is non-significant. Thus H_6 is not supported. Further test results show that Creativity mediates the effect of TKS on SCA. The coefficient value of the latent variable of EKS on SCA through Creativity is 0.294, a positive result with a t-statistic of 3.618 and highly significant p-value = 0.000, meaning that H_7 is supported.

5. DISCUSSION

Explicit knowledge sharing has a significant effect on creativity, in line with the findings form several experts in relevant studies (Wang & Wang, 2008; Wang & Noe, 2010; Panahi, Watson, & Partridge, 2013; Scheibe & Gupta,2017; Zhang et., al., 2020; De Clercq & Pereira, 2020). Explicit knowledge sharing will stimulate organizations to think critically and creatively (Lindsey, 2006; Haeli, 2020). Additionally, this study finds that tacit knowledge sharing has a positive and significant direct effect on creativity indicating that business actors should improve this aspect of their businesses, and supporting a number of relevant prior studies (BaldÃ, Ferreira, & Maynard, 2018; Zhang et., al.,2020; De Clercq & Pereira, 2020). Smith (2001) states that tacit knowledge is the most valuable organizational knowledge as it is internal, resides in the head of the business actor who continues to be developed, so that tacit knowledge sharing will allow the stimulation of creativity and the changes needed to develop the company and meet changing business needs.

The other findings that explicit knowledge sharing has a direct effect on sustainable competitive advantage, is in accordance with the statements of previous studies (McFadyen & Canella, 2004; Chuang, 2004; Nguyen & Neck, 2008; Zaied, 2012). Additionally, tacit knowledge sharing has a direct effect on sustainable competitive advantage studies (relevant studies with Ambrosini & Bowman, 2001; Wang & Wang, 2008; Rahimli, 2012). The effectiveness of tacit and explicit knowledge sharing as part of knowledge management can be used as a strategy to increase organizational competitiveness (Duan, Yang, Huang, Chin, Fiano, Nuccio & Zhou, 2022).

Furthermore the results of other studies stated that creativity has a positive and significant effect on sustainable competitive advantage, which is in line with the findings of Johanessen & Olsen (2009); Ren, Xie, & Krabbendam (2009); Nuryanti & Nurjaman (2017); and Azzahra, Suyanto & Darmayanti (2021). This study shows that the higher the level of creativity in the business, the higher the level of competitiveness of the company.

Companies that have a sustainable competitive advantage will be able to maintain their business in a sustainable manner.

The results of the mediation test show that explicit knowledge sharing has a positive and significance effect on sustainable competitive advantage through creativity as found by Al-Sa'di, Abdallah & Dahiyat (2017); Samsir, Nursanti, & Zulfadil (2017); Eren, Ozdemirt Abdulkhoshim (2017); Marcelo, and Daniel – Jimenez & Juan – Navarro (2016). On the other hand, tacit knowledge sharing was shown to have no significance effect on sustainable competitive advantage through creativity according to the research of Egbu et al., (2005) which contradicts Serrat (2008). It is estimated that there are difficulties in transmitting and formalizing tacit knowledge due to its organizational elements (Nonaka, 1991; Hill and Ende, 1994; Rahimli, 2012), especially in small and medium-sized enterprises with limited resources.

Tacit knowledge (know-how) is knowledge contained in a person's mind according to that person's understanding and experience, making this type of knowledge unique and distinctive (Lee & Choi, 2003). This tacit knowledge is difficult to articulate but can be shared. Sharing tacit knowledge into explicit knowledge is referred to as an externalization process, which requires presenting it in a more general form so that it is easily understood by others. The results of this study have several practical consequences for the company. First, it provides information for SMEs, especially regarding the achievement of a sustainable competitive advantage through optimizing tacit and explicit knowledge sharing. Second, it indicates that to increase the sustainable competitive advantage requires creativity, where creativity will also increase when tacit and explicit knowledge sharing are carried out properly.

6. LIMITATION AND FUTURE STUDIES

This study has several limitations including: the study was only conducted on small and medium enterprises in Yogyakarta (DIY) and Central Java, therefore further research is expected to accommodate a wider scope. The study also examines only the role of creativity as an mediating variable and the effect of tacit and explicit knowledge sharing on the sustainability of a company's competitive advantage. Further research is expected to include other mediating or moderating variables to better explain what variables can increase the sustainability of a company's competitive advantage. In addition, this study uses only one mediator, further research can incorporate further moderators to examine the relationship between tacit and explicit knowledge on the sustainable competitive advantage. Another limitation is the size of the company (small and medium) which is thought to complicate the division of tacit knowledge into explicit knowledge, so that further research has the opportunity to include technological variables that will facilitate the sharing process (Nugroho, 2011). Another limitation in the sampling technique in that it cannot be ascertained that the size of the sample used is representative in terms of quantity, even though efforts were made to be representative of the population.

7. IMPLICATIONS

The study reveals the importance of knowledge sharing, either tacit or explicit, in increasing the competitive advantage of businesses, especially small and medium enterprises. In addition, the research also recommends creativity as something that must be owned by business actors to generate a sustainable competitive advantage. The creativity of business actors must be possessed. One element of this creativity is in sharing knowledge with

other business actors, experts, universities, or other stakeholders. It is recommended that businesses aim to convert tacit knowledge to explicit knowledge not only through face-to-face but also online meetings since under certain conditions face-to-face meetings may not be possible. Therefore, tacit knowledge cannot be converted into explicit knowledge. The findings of this study are expected to act as an initial gateway for the development of a sustainable competitive advantage for businesses, especially for small and medium enterprises. This study can be used as a more comprehensive and in-depth reference on the role of tacit and explicit knowledge sharing for business sustainability.

Based on the ASEAN Development Bank survey (2020), 48.6% of Indonesian SMEs had temporarily closed. The same condition occurred in Laos (61%) and Thailand (41%). SMEs in Indonesia faced a business environment where even domestic demand declined by 30.5%. This declining condition was in line with the increase in the number of employees being laid off, resulting in a decrease in the income level of the community. These conditions pushed the Southeast Asian economy to decline, as SMEs had become an important force in the economy, accounting for almost 97% of the business world, and with the ability to absorb almost 97% of the national workforce in 2010 to 2019. The findings of this study confirm the important role of tacit and explicit knowledge sharing in encouraging the creativity of business actors, as well as strengthening business continuity in the form of a sustainable competitive advantage. It is also possible that the findings of this study be used to explain relevant business phenomena within the scope of SMEs in others countries. The findings of this research can be an effective strategy in increasing the competitive advantage of SMEs. Finally, through the results of tacit empirical studies and explicit knowledge sharing, creativity and sustainable competitive advantage are expected to become a practical reference for managers or business owners of SMEs and others business.

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