APPLYING THE PERSONAL KNOWLEDGE MANAGEMENT IN NETWORK QUALITY AND VALUE CREATION TOWARD SUSTAINABLE COMPETITIVE ADVANTAGE
(A Conceptual Model on the Garment Industry in Salatiga)

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Keyword:
Sustainable competitive advantage, personal knowledge management, value creation, network quality

Abstract

Organizations must manage information and knowledge effectively and allow knowledge-based value creation. This study examines the role of personal knowledge management in increasing Value creation to achieve sustainable competitive advantage. This research is explanatory research using quantitative descriptive-analytical methods. Respondents are managers of 30 garment companies in Salatiga, the sampling method used is a census and scoring using a Likert scale of 1 to 5, and the data is processed using SEM AMOS software. The results showed that personal knowledge management had a positive and significant effect on value creation. Personal knowledge management has a positive and significant effect on sustainable competitive advantage. Value creation was found to positively and significantly affect sustainable competitive advantage. Network quality strengthens the influence of personal knowledge management and network quality on sustainable competitive advantage. Further research is suggested to examine the influence of other factors that influence value condition to knowledge management by considering the quality factor of HR Industry players and product marketers who can competitiveness/ innovativeness in achieving sustainable competitive advantage.

INTRODUCTION

The Digital Era is when human resources become a company's asset and no longer a factor. The era of disruption must be confronted by expanding the contribution of human resources as the only foundation for competitive advantage for companies and how they manage a human resource aspect inside it (Blanchet et al., 2014). The management of human resources owned by the organization can be used as a source of competitive advantage. It is not easily imitated by rivals because, among other reasons such as it is not transparent, the influence of culture and technology will affect skills, abilities, and conformity with existing systems.

A good organization should address the situation's complexity such as the environment's quick change, interaction, and sustainable development with sufficient intelligence by becoming more sensitive to adapting to change, have sufficient thinking system ability to see inter-affection in a larger system, and find "fundamental solutions;" Meanwhile they must be able to learn, act, and innovate to be a healthy and sustainable organization (Wen, 2014).

Zezulka et al., (2016) state the fourth industrial revolution occurs through the integration between humans, machines, and resources. The fourth industrial revolution is characterized by a paradigm shift from centrally controlled to decentralized production processes (Roblek et al., 2016). This transformation occurs in the service and product / goods industries (Zezulka et al., 2016). Information and networks play a very important role in this era, where material objects will easily be found in the network (Koch & J.Windsperger, 2017). In this case, the real world turns into a huge information system.

Knowledge management still needs instruments and patterns that are clear and meet the requirements of this time (Macmillan et al., 2017). Organisations must determine whether customisation or codification of strategies—or expanding both—is more crucial to them. The biggest obstacle to knowledge-based value generation and adequate information and knowledge management for firms is how well such organisations support employee collaboration (K. & Kumta, 2014).

New business opportunities and threats to existing businesses arise from digitalization. It requires new knowledge and skills to offer new and revised products, services or change business models. Integrating learning processes is one of the challenges for business development operations (K. & Kumta, 2014). The competencies gained from learning are the basis for developing and implementing digital business strategies (Mithas et al., 2013). Competency development needs to be aligned with digital business strategies to create value that distinguishes the company from its competitors (Bharadwaj et al., 2013).

Several studies in industry marketing have recently increasingly recognized the role of learning in shared value creation (Waseem et al., 2018). Nonetheless, investigations into the role of learning in the value-creation process are few and in much of the literature, competencies are more likely to concentrate on knowledge-based interpretations and specific skills that have the potential to limit our understanding of constructs (Wenger-Trayner, 2019). To address this gap, this study proposes how the management of individual knowledge becomes a highly effective way to share, integrate and create knowledge and thus create value in collaboration for organizations achieving Sustainable competitive advantage.

This research aims to examine the role of personal knowledge management in increasing Value creation to achieve sustainable competitive advantage.

Furthermore, the research question is how to increase Value creation with personal knowledge management to achieve sustainable competitive advantage. The formulation of the problem raised in this research design is, what is the role of personal knowledge management in increasing Value creation to achieve sustainable competitive advantage.

LITERATURE REVIEW
Sustainable Competitive Advantage

Sustainable competitive advantage organizations are the results provided by scarce, valuable and unique human resources; customer relationships, and systems that provide organizations with a sustainable competitive position (Kobayashi, 2014). The essential thinking of creating a competitive strategy starts with how the business will be developed, whether it is the goal and what policies will be needed to achieve that goal(Musetescu, 2013).

Sustainable competitive advantage organizations are the results provided by scarce, valuable and unique human resources; customer relationships, and systems that provide organizations with a sustainable competitive position ((Chahal & Bakshi, 2015).

Basically, every company competing in an industrial environment desires to be superior to its competitors (Clemons, 2019). Organizations implement this competitive strategy explicitly through the activities of the various divisional divisions present in the organization. The basic idea of creating a sustainable competitive advantage starts with how the business will be developed, whether it is actually the goal and what policies will be needed to achieve that goal (Mahdi et al., 2019)

Personal Knowledge Management

Personal Knowledge Management (PKM) is a set of processes from a person to collect, classify, store, browse, retrieve and share knowledge in all his daily activities and also these processes support his work activities (Stern, 2018) This is closely related to the view that 'knowledge workers' need to grow continuously and learn sustainably (Schmitt, 2018). PKM is a bottom-up Knowledge Management (KM) approach, as opposed to the conventional concept that emphasizes the top-down approach (Schmitt, 2018).

PKM can be viewed from two dimensions: personal knowledge and personal management. Personal Knowledge Management can be an important foundation for companies/organizations to apply Knowledge Management widely or thoroughly in the company/organization environment (Hwang et al., 2018)

PKM is measured through several indicators, namely The first is reflection means how individuals can improve their knowledge operations on an ongoing basis. The Second is managing to learn means how individuals can organize their learning process. The third is information literacy, which means how an individual can understand important information, good for himself, quality, and how to find information. The last is canvassing means how individuals identify and capture ideas, experiences, opinions and thoughts inta new knowledge for themselves (Chatti, 2012). Personal Knowledge Management (PKM). In this study, only 3 indicators, namely reflection, managed learning and coordination, were used.

Organizations need to build the ability to ensure that the knowledge gained remains relevant to the organization's needs, having definite boundaries when the organization exchanges knowledge with other organizations (Hislop et al., 2018) Therefore, knowledge is focused as an effort to prevent the spread of unwanted knowledge (Ilvonen et al., 2015) as a step of knowledge visibility (Jean et a l. 2007), and protect organizations from loss of knowledge (Jennex & Durcikova, 2013). Thus, to some degree, vulnerability to the outflow of knowledge is accepted as a price for generating access to valuable knowledge (Manhart & Thalmann, 2015) .

Network Quality

Quality Network is the ability to initiate, maintain, and leverage relationships with other partners (Srećković, 2018). A quality network will ensure positive relationships by connecting employees and generating effective resources for performance

improvement (Moqbel and Kock, 2018). However the Identify four components of network capabilities are coordination, relational, peer knowledge, and internal communication (Srećković, 2018). Thus can be concluded that network quality is a person's ability to start, maintain and utilize relationships with other partners. In this study, network quality was measured by relation, coordination and harness (utilizing) adapted from the research of Koch & J.Windsperger, (2017).

A quality network will provide several advantages in terms of knowledge sharing where with a network, the process of disseminating information will be more effective, efficient, easy, cheap, and fast. It can be used as a platform for sharing knowledge in organizations (Aboelmaged, 2018; Schulz, 2018; Hislop et al., 2018).

Value Creation

Value creation will increase the output of organizations in good service governance (Porter & Kramer, 2019). Everyone influences each other with ideas that reinforce the service's structure, process, and culture. Company people's interactions must focus on creating more value for customers (Ramaswamy & Ozcan, 2018). Value creation is the basis for the organization's progress (Porter & Kramer, 2019). More value can be created for products and services produced through innovation so that the quality and appearance of these products or services are more in demand by customers (Campanella et al., 2019). More value can also be created from the positive attitudes and behaviors of Human Resource (HR), thus the customers get a pleasant experience and do repeater buying (Freudenreich et al., 2019). The best service ideas are accustomed to flowing, evolving, and evolving to create more value (Storbacka, 2019). Value creation comes not only from innovation and creativity, but also from the right awareness and perception to collaborate, synergizing all competencies and knowledge gained to provide the best service (Storbacka, 2019). So that the value creation in this study is measured by creativity, collaboration, synergizing, and innovation.

RESEARCH METHOD

This research is explanatory research that uses quantitative descriptive-analytical methods. The respondents were managers of 30 garment companies in Salatiga, the sampling method used was census and scoring using a likert scale of 1 to 5, and the data was processed using SEM AMOSe software.

RESULT AND DISCUSSION

Hypothesis testing of this study uses inferential analysis, namely Structural Equal Modeling (SEM). SEM analysis in this study consists of two stages of analysis, namely 1) confirmatory analysis for testing the factors that make up each variable, and 2) conducting regression weight testing in full model analysis. The confirmatory factor analysis results of each construct can be presented as follows.

Figure 1

Hacyl Confirmatory Analysis of Exogenous Variables
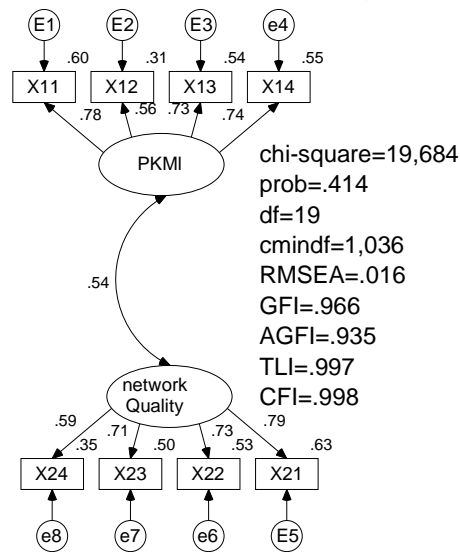
Source: Primary Data Processed, (2019)

From Figure 1 above, the results of exogenous variable feasibility testing can be presented in Table 1.

Table 1 Exogenous Variable Feasibility Test Results

Goodness of Fit Index	Cut off Value	Estimation Results	Evaluation Type
Chi-Square (df=19)	Small (<30.14)	19,684	Good
Probability	≥ 0.05	0.414	Good
CMIN/DF	≤ 2.00	1,036	Good
RMSEA	≤ 0.08	0.016	Good
GFI	≥ 0.90	0.966	Good
AGFI	≥ 0.90	0.935	Good
TLI	≥ 0.95	0.997	Good
CFI	≥ 0.95	0.998	Good

Source : Primary Data Processed, 2019

Based on the results of the feasibility testing of the exogenous variable confirmatory model, it is known that the exogenous model can meet the established goodness of fit criteria indicated by the goodness of fit test value with the measures of the feasibility of the model being in the good category indicating no difference between the predicted model and observation data. So it can be concluded that the match of the predicted model with the observed values is already qualified.

In the second stage, the confirmatory factor analysis of exogenous variables is carried out by testing the meaningfulness of the indicators that make up the exogenous variables analyzed from the value of loading factors or standardized regression weight of each indicator in Table 2.

Table 2. Standardized Regression Weight Confirmatory Factors Exogenous Variables

			Estimate
X11	<---	Network quality	.778
X12	<---	Network quality	.555
X13	<---	Network quality	.733
X14	<---	Network quality	.743
X21	<---	PKM	.793
X22	<---	PKM	.727
X23	<---	PKM	.708
X24	<---	PKM	.591

Source : Primary Data Processed, 2019

Based on the results of the confirmatory analysis of exogenous variables, it shows that the 8 indicators that make up each exogenous variable show a loading value of factor above 0.5, so it can be concluded that these indicators can be used as formers of exogenous variables.

The results of the first stage of analysis carried out in the analysis of endogenous variable confirmatory factors are by conducting feasibility testing of the endogenous variable confirmatory model. Hasil confirmatory factor analysis of endogenous variables can be presented as follows.

Figure 2
Endogenous Variable Confirmatory Factor Analysis
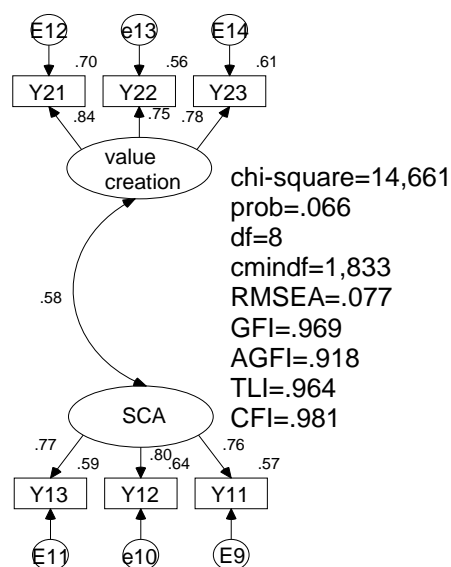
Source: Primary Data Processed, (2019)

Based on the results of the feasibility test of the endogenous variable confirmatory model, it is known that the model can meet the predetermined goodness of fit criteria indicated by the goodness of fit test value with $\chi2$ of 14.661 with a probability of 0.066 and other measures of model feasibility are in the good category that indicates the absence of differences between the predicted model and the observational data. So it can be concluded that the match of the predicted model with the observed values is already qualified.

In the second stage of the confirmatory factor analysis, endogenous variables are to test the meaningfulness of the indicators that make up the endogenous variables analyzed from the value of loading factors or standardized regression weight of each indicator in Table 3.

Table 3. Standardized Regression Weight Factor Confirmatory Variables Endogenous

			Estimate
Y11	<---	Value creation	.757
Y12	<---	Value creation	.801
Y13	<---	Value creation	.769
Y21	<---	Sustainable competitive advantage	.840
Y22	<---	Sustainable competitive advantage	.750
Y23	<---	Sustainable competitive advantage	.778

Source : Primary Data Processed, 2019

Based on the confirmatory analysis of endogenous variables results, it shows that the constituent indicators of each endogenous variable show a loading factor value above 0.5 so that it can be concluded that the indicator can be used as a formation of endogenous variables.

The reliability test in this study was calculated using construct reliability. A construct reliability value ≥ 0.70 indicates good reliability, while a construct reliability of 0.60 – 0.70 is still acceptable because the validity of the model indicator is good (Ghozali, 2011).

Table 4
Reliability Test Results

Variable	construct reliability
Personal knowledge management	0.798
Network quality	0.800
Value creation	0.819
Sustainable competitive advantage	0.833

Source : Primary Data Processed, 2019

Reliability test results show the Construct Reliability value of the entire variable to be above 0.70. Thus, the reliability test of all variables in this study is acceptable.

Thenext analysis is the analysis of Structural Equal Modeling (SEM) in a full model. The data processing results for the full analysis of the SEM model are presented below.

Table 5
Full Model Feasibility Test Results

Goodness of Fit Index	Cut off Value	Estimation Results	Evaluation Type
Chi-Square (df=93)	Small (<116,511)	123,453	Not Good
Probability	≥ 0.05	0.019	Not Good
CMIN/DF	≤ 2.00	1,327	Good
RMSEA	≤ 0.08	0.048	Good
GFI	≥ 0.90	0.910	Good
AGFI	≥ 0.90	0.868	Marginal
TLI	≥ 0.95	0,979	Good
CFI	≥ 0.95	0,984	Good

Source : Primary Data Processed, 2019

The results of the calculation of the model suitability index in Table 5. indicates that the model is data-appropriate or fit against the available data. The CFI, TLI, GFI, CMINDF and RMSEA indices are located in the range of expected values, which are included in the good category. The chi-square probability index obtained a value of 0.019 or <0.05, so the conformity is not met on these criteria. According to Ghozali (2011) chi-square values are very sensitive to the sample size. If the chi-square value

criteria does not met, you can see other indices that have met the criteria.

On the AGFI index, poor results were obtained, but the value is close to the Cut off Value or can be said to be marginal. According to Seguro (2008) in Fitriyana, et al. (2013), marginal values indicate the condition of suitability of the measurement model under the fit size criteria. However, they can still be passed on to further analysis because it is close to the good fit criteria, so the model is still acceptable. Thus, it can be implied that this research model meets the goodness of fit and can be continued on further analysis, namely hypothesis testing.

Table 6
Results of Parameter Estimation between Variables Based on SEM Model with Moderation

No	Variables Of Berpengaruh	Variable Dipengaruhi	Estimated Value	C.R	P	Information
1	PKM (X1)	Network quality (Y1)	0.343	3.941	0.000	Significant
2	PKM (X1)	SCA (Y2)	0.225	2,145	0.032	Significant
3	Network quality (X2)	SCA (Y2)	0.337	3. 659	0.000	Significant
4	Value creation (Y1)	SCA (Y2)	0.216	2,290	0.022	Significant
5	Interaction X1X2	SCA (Y2)	0.010	4.817	0.000	Significant
6	Y1X2 Interactions	SCA (Y2)	0.004	3. 662	0.000	Significant

Source : Primary Data Processed, 2019

Based on the test results of the overall model, the mathematical model equation can be written in the form of a Structural Equation Model (SEM) as follows:

$Y_1 = 0.343 X_1 + \varsigma_1$

$R^2 = 0.118$ (1)

$Y_2 = 0.225 X_1 + 0.337 X_2 + 0.216 Y_1 + 0.010 X_1 X_2 + 0.004$

$Y_1 X_2 + \varsigma_2$

$R^2 = 0.637$ (2)

The value of the coefficient of determination or R square (R^2) in the sem analysis is known as the value of the square multiple correlation. Such values can be described as follows:

1) The magnitude of the squared multiple correlation value in the first equation is 0.118 The value indicates that 11.8% of the variation in value creation value is fluenced by variation in the personal knowledge management variable.

2) The magnitude of the squared multiple correlation value in the second equation is 0.637. This value shows that 63.7% of the variation in the value of sustainable competitive advantage is determined by variations in the value of variables of personal knowledge management, value creation, network quality, as well as the interaction between personal knowledge management and network quality, and the interaction between value creation with network quality.

Based on the results of the SEM analysis, it can be seen that personal knowledge management has a positive and significant effect on value creation. The evidenced drawn by the value of the path coefficient of 0.343. the critical ratio (CR) of 3.941 with a probability of 0.000. Due to the CR> value being 1.96 and the probability < 0.05, it can be concluded that personal knowledge management positively affects value creation.

Based on the results of the SEM analysis, it can be seen that personal knowledge management has a positive and significant effect on sustainable competitive

advantage. The evidenced by the value of the path coefficient of 0.225 .The critical ratio (CR) of 2.145 with a probability of 0.032. Due to the CR> value is 1.96 and the probability < 0.05, it can be concluded that personal knowledge management positively and significantly affects sustainable competitive advantage.

Value creation was found to positively and significantly affect sustainable competitive advantage. This is evidenced by the value of the path coefficient of 0.216 and the critical ratio (CR) of 2,290 with a probability of 0.022. Because the CR> value is 1.96 and the probability < 0.05, it can be concluded that Value creation is found to have a positive and significant effect on sustainable competitive advantage.

SEM estimates show that the coefficient of interaction between personal knowledge management and network quality has a positive and significant effect on sustainable competitive advantage. This is evidenced by the CR value of 3,662 with a probability of 0.000. Because the C.R value > 1.96 and the probability value < 0.05, it can be concluded that the interaction of personal knowledge management with network quality has a positive and significant effect on sustainable competitive advantage. The interaction coefficient is positive (0.004), meaning that network quality moderation on the influence of personal knowledge management on sustainable competitive advantage is positive. This can be interpreted to mean that network quality strengthens the influence of personal knowledge management on sustainable competitive advantage.

SEM estimates show that the coefficient of interaction between value creation and network quality has a positive and significant effect on sustainable competitive advantage. This is evidenced by the CR value of 4.817 with a probability of 0.000. Because the C.R value > 1.96 and the probability value < 0.05, it can be concluded that the interaction of value creation with network quality has a positive and significant effect on sustainable competitive advantage. The interaction coefficient is positive (0.010), meaning that the moderation of value creation on the influence of network quality on sustainable competitive advantage is positive. This can be interpreted to mean that value creation strengthens the influence of network quality on sustainable competitive advantage.

For more details of the above test results summarized in the following table.

Table 7
Summary of Hypothesis Testing Results

	Hypothesis	Conclusion
H1	Personal knowledge management affects value creation	Accepted P = 0.000 < 0.05 CR = 3,941> 1.96
H2	Personal knowledge management affects sustainable competitive advantage	Accepted P = 0.032 < 0.05 CR = 2. 145> 1.96
H3	Value creation has an effect on sustainable competitive advantage	Accepted P = 0.022 < 0.05 CR = 2. 290 > 1.96
H4	network quality strengthens the influence of personal knowledge management on sustainable competitive advantage	Accepted P = 0.020 < 0.05 CR = 3. 662> 1.96
H5	Network Quality Strengthens the Effect of Value Creation on Sustainable Competitive Advantage	Accepted P = 0.000 < 0.05 CR = 4,817> 1.96

Source : Primary Data Processed, 2019

CONCLUSION

The results showed that Personal knowledge management has a positive and significant effect on value creation and sustainable competitive advantage. Value creation was found to positively and significantly affect sustainable competitive advantage. Meanwhile, network quality strengthens the influence of personal knowledge management and network quality on sustainable competitive advantage.

Individual knowledge management directed at the ability of individuals to manage their information and knowledge, namely regarding "personal knowledge management" is a very effective way to share, integrate and create understanding and thus create value in collaboration for organisations to achieve Sustainable competitive advantage. M management of knowledge management by individuals (personal knowledge management) is found to be able to filter knowledge and information that is by the organisation. The knowledge that individuals in real life cannot apply because of its practical use is not quality (Al Khattabi, et.al, 2010). The command used often shows its qualities in terms of adaptability, development and application (Al Khattabi, et.al, 2011).

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