The Importance of Knowledge Management Orientation Behaviour and Innovation on Business Performance: A Lesson From Indonesia Creative Economy Sector

Ananda Sabil Hussein[*]

Department of Management, Faculty of Economics and Business, Universitas Brawijaya, Malang, Indonesia.

Abstract

Creative economy sector is considered as the emerging sector contributing significant percentage into Indonesia GDP. As a growing sector, business organization especially small medium enterprises are expected to have a good business performance. Knowledge management is one of determinants of business performance. However, some gaps are identified in literatures regarding the effect of knowledge management on business performance. Hence, to fill the gap, this study developed the notion of knowledge management orientation as well as inserting the idea of innovation as the mediating variable. One hundred self-administered questionnaires were distributed into the owner of SMEs in Indonesia creative economy sector. Partial Least Squares (PLS) was used to analyze the data. The statistical analysis showed that knowledge management orientation does not significantly affect business performance. However, this study found the significant effect of knowledge management orientation on innovation. Innovation was also found to be the significant predictor of business performance. Hence, it is determined that knowledge management orientation has an indirect effect on business performance through innovation. Upon the completion of this study, both theoretical and practical contributions were provided.

Keywords

Introduction

Creative economy sector is one new emerging sector in Indonesia. Data published by Creative Economy agency showed that creative economy sector contributed 7.38% of Indonesia Gross Domestic Product (GDP) in 2015. This contribution was 4.38% higher than in 2014. In the perspective of international trade, creative economy sector positively contributed US$ 19.4 billion into the total of Indonesia export in 2015. In the regional level, Indonesian is considered as a leader country in creative economy, as Indonesian creative economy sector particularly digital creative sub-sector is predicted will earn the highest revenue among other South East Asian Countries in 2025 (Fauziyah, 2017).

As an emerging sector, creative economy sector is expected to show a good business performance in order to maintain the sustainability. Grant (1996) suggested that upon the invention of knowledge-based view concept, physical and tangible assets are not considered as the major element of creating business competitiveness. To be more competitive, scholars (Bueren et al., 2004; Darroch, 2005; H. Lee & Choi, 2003) suggested that business organization might exploit the knowledge owned to enhance business performance.

The research gap addressed in this study is about the inconsistent findings regarding the effects of knowledge management on business performance as some studies found the positive significant effect of knowledge management on business performance (S. Lee et al., 2012; López-Nicolás & Meroño-Cerdán, 2011), while other studies did not (Darroch, 2005).

To fill the research gap, this research suggests two things. First of all, instead of using the construct of knowledge management, this study uses the construct of knowledge management orientation (KMO) behavior to understand more the nature of knowledge management. Moreover, to bridge the effect of knowledge management orientation behavior on business performance, this study inserting the construct of innovation. The construct of KMO behavior was generated as it is expected to provide insights about individual's behavior in applying knowledge management. Innovation was considered as the mediating variables as some studies explained that innovation is the predictor of business performance (Gray, 2006; Jiménez-Jiménez & Sanz-Valle, 2011) as well as it is the result of knowledge management orientation (Yazhou & Jian, 2013).

Based on the research background, two research objectives were proposed. The first objective is to determine the direct effect of KMO behavior on performance, and the second research objective is to scrutinize the indirect effect of KMO behavior on business performance through innovation. After completing the research objectives, this study provides both theoretical and practical contributions. For theoretical contribution, this study provides a model explaining the relationships among knowledge management orientation behavior, creative innovation and business performance in the area of creative industry. For practical standpoint, this study provides an understanding for creative industry practitioners to enhance business performance.

Literature Review

Knowledge Management Orientation Behaviour on Business Performance.

The notion of knowledge management orientation behavior was derived from the notion of knowledge management. C. L. Wang et al. (2008) suggested that knowledge management orientation behavior is the behavior of organization in implementing and organizing knowledge management as well as managing the current knowledge, sharing unstated knowledge, attracting new knowledge and being opened to the new knowledge.

Previous studies (Hussein et al., 2017; C. L. Wang et al., 2008; C. L. Wang et al., 2009) explained that knowledge management orientation behavior is formed by four dimensions name organizing memory, knowledge sharing, and knowledge absorption and knowledge receptivity. Organizing memory is about the mechanism of organization in capturing, storing and disseminating information and knowledge got from previous learning process. Knowledge sharing is the second dimension of knowledge management orientation behavior. This dimension is about the process of organization in transferring the skills, information and technology among the member of organization. Knowledge absorption is considered as a complex activity of business organization as it is about the skills of business in recognizing information; assimilate it and applying the information into the business.

Although the idea of knowledge management has been discussed widely, only few studies have explored the notion of knowledge management orientation behavior especially its effect on business performance (Hussein et al., 2018; C. L. Wang et al., 2009; Yazhou & Jian, 2013). Previous research in the setting of UK industry showed that knowledge management orientation behavior has a positive significant effect on both service and manufacture industry (C. L. Wang et al., 2008). In accord to the study of Wang et al. (2008), Yazhou and Jian (2013) showed the direct positive effect of knowledge management orientation behavior on organizational performance. This study showed that among four dimensions of knowledge management orientation behavior, only knowledge sharing, knowledge absorption and knowledge receptivity have direct significant effect on organizational performance. In the context of Indonesia creative economy sector, Hussein et al. (2018) found the importance of knowledge management orientation behavior on business performance

Hence, this study proposed:

H1 : knowledge management orientation behavior has a positive direct effect on business performance

The Mediating Effect Innovation

Innovation is defined as new method in doing things through technological advancement (O'Cass & Weerawardena, 2009; Porter & Stern, 2001). Academics agree that innovation is one of key factors that is need to be maintained in order to gain long-term success in the industry (Jiménez-Jiménez & Sanz-Valle, 2011). Innovation can be conceptualized by three dimensions: orientation innovation, process innovation and

outcome innovation (Rosenbusch et al., 2011). Innovation in the context of small and medium enterprises has gained more attention in literature.

As an importance construct in strategic management, innovation was proposed as the result of knowledge management orientation behavior. The study of Yazhou and Jian (2013) found the significant effect of knowledge management orientation behavior on innovation. This finding means the higher the orientation of business organization in applying knowledge management is, the higher their innovation will be. The effect of knowledge management orientation behavior on innovation was also suggested by Z. Wang and Wang (2012). Z. Wang and Wang (2012) contended that knowledge management orientation has direct positive effects on both innovation speed and innovation quality.

Innovation cannot be separated from the notion of business performance. Previous studies showed that innovation has a positive significant effect on business performance. The higher the innovation of organization is, the better the performance will be. The study of Jiménez-Jiménez and Sanz-Valle (2011) showed that the innovation of business organization in Spain significantly affected the performance. The significant effect of innovation on performance was also indicated by Z. Wang and Wang (2012) in the research among China companies. Walker et al. (2010) suggested that in affecting business performance, knowledge management orientation behavior has two effects. They are a direct effect and other is indirect effect through performance management. Figure 1 depicts the proposed conceptual model.

Based on the review of literature, three hypotheses were proposed:

H2 : Knowledge management orientation behavior has a positive significant effect on Innovation

H3 : Innovation has a positive significant effect on business performance
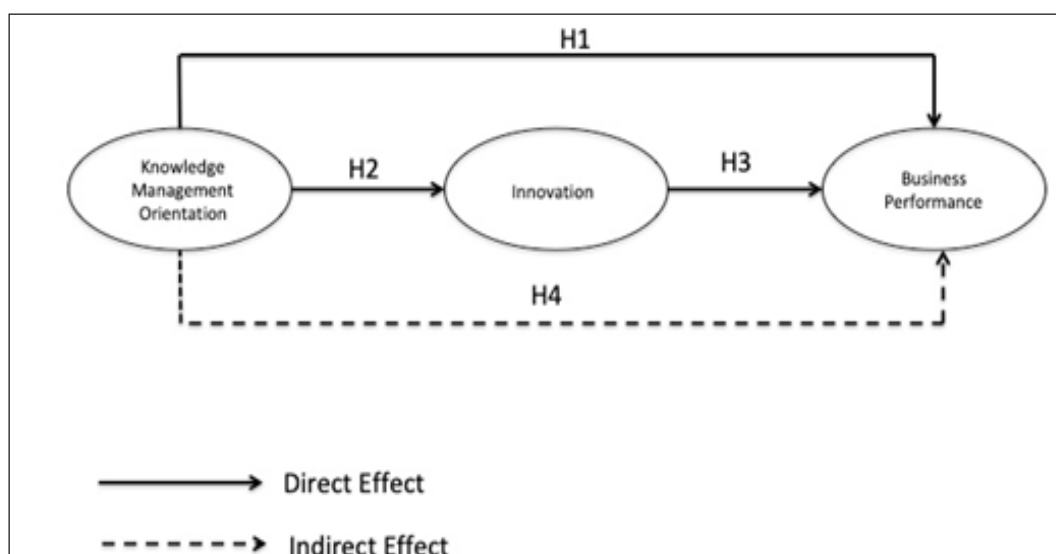

Figure 1. Conceptual Model

H4 : Innovation mediates the effect of knowledge management orientation behavior on business performance.

Research Method

Samples

One hundred self-administered questionnaires were distributed into the owner of SMEs in the area of creative economy sector in Malang region, East-Java Province, Indonesia. Malang region was taken as research location because this city has been recognized as one of creative cities in Indonesia (Damayantho, 2017). In addition, Malang city government provides some programs for creative industry development (Arifin, 2016). Regarding the sample size, this number of sample is considered enough as Wynne W Chin and Newsted (1999) suggested that the minimal sample size of PLS is 10 times of indicator from the latent variable having the most exogenous variables. For this study, business performance is the latent variable having the most exogenous variables (i.e. knowledge management orientation and innovation). Business performance has five indicators; hence the minimal sample is 50. The following demographic profile based on sample are: 77% are male, 52% having tertiary education background and 47% are aged between 31 and 40. Table 1 summarizes the demography of respondents.

Table 1. Demography

Variable		%
Gender	Male	77
	Female	23
Education	Primary	14
	High School	22
	Diploma	12
	Bachelor	43
	Postgraduate	9
Age	<20	2
	21 – 30	21
	31 – 40	47
	41 – 50	21
	51 – 60	6
	>60	3

Measures

The questionnaire was divided into two sections. The first section measures the demographic of respondents while the second section measures the research variables such as knowledge management orientation, innovation and business performance. Five point Likert scale anchored from (1) strongly-disagree to (5) strongly-agree was used to measure the construct. The measurements used

in this study were developed based on the previous studies. The construct of knowledge management orientation behavior was adapted from Hussein et al. (2017) and C. L. Wang et al. (2008). The construct of innovation was adapted from Damanpour (1996) and business performance was adapted from Yazhou and Jian (2013).

Data Analysis

Partial Least Squares (PLS) with smartPLS 3.0 was used to analyze the data. In analyzing data with PLS, three steps of analysis were taken. They are outer model evaluation, inner model evaluation and hypotheses test. In addition to these three analyses, sobel's

test was conducted to test the mediating effect. Outer model evaluation was conducted by examining convergent validity, discriminant validity and uni-dimensionality. Inner model evaluation was tested by investigating the score of coefficient of determination (R^2), predictive relevance (Q^2) and Goodness of Fit (GoF). For testing the proposed hypotheses, alpha was set in the level of 5%. Baron and Kenny (1986) mediation analysis test was employed to test the indirect effect. According to this approach a mediation effect occurs if the independent variable has a significant effect on mediating variable, and the mediating variable has a significant effect on dependent variable.

Outer Model Evaluation

Table 2. Outer loading and Composite Reliability

Construct	Indicators	Business Performance	Composite Reliability
Business Performance	BP_2	0.832	0.823
	BP_3	0.653	
	BP_5	0.845	
Innovation	INO_2	0.603	0.842
	INO_3	0.765	
	INO_4	0.559	
	INO_5	0.661	
	INO_6	0.716	
	INO_7	0.696	
	INO_8	0.591	
Knowledge Management Orientation	KA	0.704	0.757
	KR	**0.863**	
	KS	**0.728**	
	OM	**0.833**	

As mentioned previously, outer model evaluation was conducted through examining convergent validity, discriminant validity and uni-dimensionality. The score of outer loading reflects the convergent validity.

Wynne W Chin (2010) suggested that to be free with convergent validity problem, the score loading ideally above 0.7. However, Hair et al. (1998) explained that score loading between 0.5 and 0.7 are still acceptable. For this study, the

initial estimation showed that INO_1, BP_1 and BP_4 have outer loading below than 0.5. Thus, these three items were removed from the model. The second estimation showed that there are no items having outer loading below 0.5. It means there are no convergent validity problems detected.

Uni-dimensionality was examined by investigating composite reliability. Wynne W Chin (2010) explained that the value of composite reliability must be higher than 0.7. The PLS estimation showed that the composite reliability vary between 0.757 and 0.842. Hence,

there is no uni-dimensionality problem found. Table 2 summarizes the results of outer loading and composite reliability.

Discriminant validity was assessed by comparing the value of cross loading with the score of outer loading. To be free with discriminant validity problem, the score of outer loading of each item with its latent variable must be higher than its cross-loading. The PLS analysis showed that outer loading for each items is larger than its cross loading value. Thus there is no discriminant validity problem. Table 3 shows the comparison between outer loading score and cross loading.

Table 3. Summary of Outer Model Evaluation

Constructs	Indicators	Business Performance	Innovation	KMO
Business Performance	BP_2	**0.832**	0.576	0.384
	BP_3	**0.653**	0.473	0.353
	BP_5	**0.845**	0.560	0.359
Innovation	INO_2	0.265	**0.603**	0.503
	INO_3	0.631	**0.765**	0.479
	INO_4	0.464	**0.559**	0.454
	INO_5	0.434	**0.661**	0.508
	INO_6	0.577	**0.716**	0.419
	INO_7	0.415	**0.696**	0.576
	INO_8	0.316	**0.591**	0.463
Knowledge Management Orientation	KA	0.423	0.516	**0.704**
	KR	0.339	0.563	**0.863**
	KS	0.135	0.388	**0.728**
	OM	0.284	0.462	**0.833**

Inner Model Evaluation

Upon the completion of outer model evaluation, the further evaluation is examining inner model evaluation or structural model. As suggested by Wynne W Chin and Newsted (1999), outer model evaluation was conducted by estimating the score of R2, Q2 and GoF. The following section discussed the analysis of inner model evaluation.

Wyne W Chin et al. (2008) suggested that the value of coefficient determination is categorized into three classes: weak (0.19), moderate (0.33) and substantial (0.67). For this study, the score of R2 are 0.479 and 0.539. Hence, the score of R2 in this study is considered as moderate-substantial.

Apart from the value of coefficient determination, to evaluate the structural model, this study also used stone-geisser predictive relevance (Q2). Predictive

relevance explains about how to measure the level of well-observed values which were restructured by the model and its parameter (Chin, 2010). To have a predictive relevance, the endogenous constructs must have Q2 greater than 0 (Q2 > 0) (Hair Jr et al., 2014). For this study, the value of Q2 varied between 0.213 and 0.267. Thus, this structural model has predictive relevance.

The value of Goodnes of Fit index (GoF) refer Cohen (1988) suggestion regarding the calculation of effect size. GoF value 0.10 is considered small, while 0.25 and 0.36 are considered medium and large respectively. For this study, the score of GoF is 0.637. Thus, it is considered as large.

Based on three indicators of inner model evaluation, there is no problem faced. Hence, hypotheses test can be conducted. Table 4 summarizes the estimation of inner model evaluation.

Table 4. Inner Model Evaluation

	R^2	Q^2
Innovation	0.539	0.213
Business Performance	0.478	0.267
GoF $= \sqrt{0.778 \; x \; 0.523} = 0.637$		

Hypothesis Test

Four hypotheses are proposed in this study. The First hypothesis proposed the direct effect of knowledge management orientation behavior on business performance. The statistical estimation found there is no significant effect of knowledge management orientation behavior on business performance (t = 0.731; β = -0.084). Thus hypothesis 1 is not supported.

While knowledge management orientation behavior does not have a significant direct effect on business performance, it has a positive direct effect on innovation (t = 13.456; β = 0.734). This positive significant effect means the higher the orientation of business organization in applying knowledge management is, the higher the inn ovation level will be. It supports Hypothesis 2.

Hypothesis 3 predicted the direct effect of innovation on business performance. The PLS estimation showed that there is a positive significant effect of innovation on business performance (t = 7.401; β = 0.748). Thus, supporting Hypothesis 3.

Table 5 summarizes the results of Hypotheses Test

Table 5. Summarizes the Results of Hypotheses Test

Hypothesis	Path	B	t-statistic	
H1	KMO → BP	-0.084	0.731	NS
H2	KMO → Innovation	0.734	13.456	Supported
H3	Innovation → BP	0.748	7.401	Supported
H4	KMO → Innovation → BP	0.552	6.776	Full mediation

KMO : knowledge management orientation; BP : Business Performance

Sobel's test was employed to test the mediating effect of innovation in the relationship between knowledge management orientation behavior on business performance. The Sobel's test calculation showed that the score of Z is 6.776 with indirect path coefficient is 0.552. As knowledge management does not have a direct effect on business performance, this mediating effect is considered as full mediation.

Discussion and Conclusion

Two research objectives were proposed by this study. The first objective is to determine the direct effect of knowledge management orientation behavior on business performance and the second research objective is to investigate the mediating effect of innovation in the relationship between knowledge management orientation behaviors on business performance.

Pertaining the first research objective, the statistical test showed that knowledge management orientation does not have a direct significant effect on business performance. This insignificant effect contradicted with C. L. Wang et al. (2008) and Yazhou and Jian (2013) who found a direct positive significant effect of knowledge management orientation on business performance.

This insignificant direct effect is probably happened because knowledge management orientation behavior needs to have a mediating variable prior give an effect on business performance. The indirect effect of knowledge management orientation behavior on business performance would be discussed in the next following section.

While the first research objective aims to test the direct effect of knowledge management orientation behavior on performance, the second research objective tries to check the indirect effect of knowledge management orientation behavior on performance through innovation. Prior testing the indirect effect, following Baron and Kenny (1986) mediation analysis steps this study tested the direct effect of knowledge management orientation behavior on innovation as proposed by Hypothesis 2, and innovation to business performance as proposed by Hypothesis 3.

Hypothesis 2 explained the direct effect of knowledge management orientation behavior on innovation. The statistical estimation showed that there is a positive direct effect of knowledge management orientation behavior on innovation. This positive direct effect strengthen the study of Yazhou and Jian (2013) who found the positive effect of knowledge management orientation on innovation. Practically, this study implies that the manager or owner of creative business must have behavior orienting on the application of knowledge management in order to enhance innovation.

The effect of innovation on business performance was suggested by hypothesis 3. The statistical calculation suggested that innovation has a positive significant effect on business performance. This significant effect is similar to the previous studies (Jiménez-Jiménez & Sanz-Valle, 2011; Z. Wang & Wang, 2012) who found the importance of innovation in enhancing business performance. This finding implies that business creative should have a high

innovation, as it is very importance in affecting business performance.

In this study, the indirect effect of knowledge management orientation behavior on business performance mediated by innovation was tested by following Baron and Kenny (1986)'s approach. This approach showed that there is an indirect effect of knowledge management orientation on business performance through innovation. To test the hypothesis, sobel's test was employed. The result suggested that there is an indirect effect of knowledge management orientation on business performance via innovation.

This indirect effect explains the non-significant direct effect of knowledge management orientation on business performance. This result suggested that in affecting business performance, knowledge management orientation must be mediated by innovation. It implies that business creative practitioners need to give concern toward innovation which finally lead to better performance.

Upon the completion of this study, some contributions are provided. First of all, this study proposed a conceptual model explaining the relationship among knowledge management orientation behavior, innovation and business performance. While previous studies mentioned the importance of knowledge management and innovation in affecting business performance, there is no single conceptual model has explained the application of knowledge management in the level of individual behavior. Hence, by bringing the concept of knowledge management orientation behavior, this study offers a new concept about the

interrelationship between knowledge management orientation behavior, innovation and business performance. The second contribution is about the effect of knowledge management orientation behavior and innovation on business performance. The results of this study validate the previous studies about the effect of knowledge management orientation behavior and innovation on business performance and the last contribution is about the mediating effect. Apart from the direct effects among construct, this study showed that there is an indirect effect of knowledge management orientation on business performance through innovation. Hence, in affecting business performance, knowledge management orientation behavior should affect innovation and innovation affects business performance.

Apart from providing theoretical contribution, this study also provided some practical contributions. This study provides a guidance for SMEs in the sector of creative economy to enhance the business performance. The second practical contribution is about the way to enhance innovation. In accord to the tested conceptual model, this study practically suggests that innovation can be enhanced through the application of knowledge management orientation behavior and the last contribution is about the way of enhancing knowledge management orientation behavior. To enhance the behavior, this study suggested to the SMEs to give more concern on organizing memory, sharing the knowledge, absorbing the new knowledge and open with new information.

Limitations and Future Studies

While this study provided both theoretical and practical contributions, this study still recognizes some limitations. The first limitation is about the generalizability of samples used. For this study, the sample was recruited from creative SMEs in Malang city, East Java Province, Indonesia. Hence, the sample does not represent the whole population of creative industry SMEs in Indonesia. The future study can replicate this research model to other setting of research. The second limitation is about the comprehensiveness of model. This conceptual model consists of three variables name knowledge management orientation, innovation and business performance. To have more comprehensive results, the future study might add some variables such as market capabilities, market orientation and entrepreneurial marketing. The last limitation is about the self-administered questionnaires used in this study. As lack of control during the data collection process by using self-administered questionnaires, there is a potency that respondents mislead in answering the questionnaires. It might cause validity problems. To reduce the bias, the questionnaires used should be designed simple and clear.

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Notes on Contributor

Ananda Sabil Hussein is a Senior Lecturer in Management Department at the Faculty of Economics and Business, University of Brawijaya, Indonesia. He got his doctorate degree in Lincoln University Canterbury, New Zealand. His research interests are in marketing strategy, consumer behavior and marketing services.

References

Arifin, Z. (2016). Malang Akan Jadi Kota Kreatif Dunia. Retrieved2019,from https://www.liputan6.com/regional/read/2471040/malang-akan-jadi-kota-kreatif-dunia

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of personality and social psychology, 51(6), 1173.

Bueren, A., Schierholz, R., Kolbe, L., & Brenner, W. (2004). Customer knowledge management-improving performance of customer relationship management with knowledge managementIEEE. Symposium conducted at the meeting of the System Sciences, 2004. Proceedings of the 37th Annual Hawaii International Conference on

Chin, W. W. (2010). How to write up and report PLS analyses. In Handbook

of partial least squares (pp. 655-690): Springer.

Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares. Statistical strategies for small sample research, 1(1), 307-341.

Chin, W. W., Peterson, R. A., & Brown, S. P. (2008). Structural equation modelling in marketing: some practical reminders. Journal of Marketing Theory and Practice, 16(4), 287-298. doi:doi:10.2753/MTP1069-6679160402

Cohen, J. (1988). Statisticak Power Analysis for the Behavioural Sciences. New York: Lawrence Erlbaum.

Damanpour, F. (1996). Organizational complexity and innovation: developing and testing multiple contingency models. Management science, 42(5), 693-716.

Damayantho, T. (2017). Sepuluh Kota Kreatif Indonesia. Retrieved 2019, from http://indonesiakreatif.bekraf.go.id/iknews/10-kota-kreatif-di-indonesia-1/

Darroch, J. (2005). Knowledge management, innovation and firm performance. Journal of Knowledge Management, 9(3), 101-115. doi:10.1108/13673270510602809

Fauziyah, A. (2017). Indonesia Berpotensi Menjadi Negara dengan Industri Creative Economy Terbesar di Asia Tenggara Tahun 2025. Retrieved 2019, from http://www.digination.id/read/0129/indonesia-berpotensi-menjadi-negara-dengan-industri-creative-

economy-terbesar-di-asia-tenggara-tahun-2025

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. Strategic management journal, 17(S2), 109-122.

Gray, C. (2006). Absorptive capacity, knowledge management and innovation in entrepreneurial small firms. International Journal of Entrepreneurial Behavior & Research, 12(6), 345-360.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). Multivariate data analysis (Vol. 5): Prentice hall Upper Saddle River, NJ.

Hussein, A. S., Rahayu, M., Prabandari, S. P., & Rosita, N. H. (2017). Revisiting the Dimensions of Knowledge Management Orientation Behavior in Indonesia Creative Industry. International Research Journal of Business Studies, 9(2).

Hussein, A. S., Rahayu, M., Rosita, N. H., & Ayuni, R. F. (2018). Knowledge Management Orientation, Market Orientation, and SME's Performance: A Lesson from Indonesia's Creative Economy Sector. Interdisciplinary Journal of Information, Knowledge, and Management, 13, 183-199. doi:https://doi.org/10.28945/4089

Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. Journal of business research, 64(4), 408-417.

Lee, H., & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance:

An integrative view and empirical examination. Journal of management information systems, 20(1), 179-228.

Lee, S., Gon Kim, B., & Kim, H. (2012). An integrated view of knowledge management for performance. Journal of Knowledge Management, 16(2), 183-203. doi:10.1108/13673271211218807

López-Nicolás, C., & Meroño-Cerdán, Á. L. (2011). Strategic knowledge management, innovation and performance. International Journal of Information Management, 31(6), 502-509. doi:https://doi.org/10.1016/j.ijinfomgt.2011.02.003

O'Cass, A., & Weerawardena, J. (2009). Examining the role of international entrepreneurship, innovation and international market performance in SME internationalisation. European Journal of Marketing, 43(11/12), 1325-1348.

Porter, M. E., & Stern, S. (2001). Innovation: location matters. MIT Sloan management review, 42(4), 28.

Rosenbusch, N., Brinckmann, J., & Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. Journal of business Venturing, 26(4), 441-457.

Walker, R. M., Damanpour, F., & Devece, C. A. (2010). Management innovation and organizational performance: The mediating effect of performance management. Journal of Public Administration Research and Theory, 21(2), 367-386.

Wang, C. L., Ahmed, P. K., & Rafiq, M. (2008). Knowledge management orientation: construct development and empirical validation. European Journal of Information Systems, 17(3), 219-235.

Wang, C. L., Hult, G. T. M., Ketchen Jr, D. J., & Ahmed, P. K. (2009). Knowledge management orientation, market orientation, and firm performance: an integration and empirical examination. Journal of Strategic Marketing, 17(2), 99-122.

Wang, Z., & Wang, N. (2012). Knowledge sharing, innovation and firm performance. Expert systems with applications, 39(10), 8899-8908.

Yazhou, W., & Jian, L. (2013). An empirical research on knowledge management orientation and organizational performance: the mediating role of organizational innovation. African Journal of Business Management, 7(8), 604.