

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

Paul Lie Hian Keng, Asep Hermawan, Agustinus Sri Wahyudi

willy.arafah@gmail.com

Abstract: The main objective of this study is to analyze the Indonesian food and beverage industry, in aspects of quality management, knowledge management, competitive advantage and firm's performance. Research was conducted at food and beverage industry in Indonesia which are registered in Indonesia Food Directory 2012 – 2013 year book. The data obtained and analyzed by using SEM (Structural Equation Modelling), SPSS 22.0 and Lisrel 8.80 version. This study shows that in food and beverage industry in Indonesia, quality management and knowledge management affect competitive advantage, and competitive advantage affects firm's performance. The result also shows that quality management, knowledge management and competitive advantage all together affect firm's performance. This study has 2 (two) novelties, those are: 1. the quality management and knowledge management all together affect on firm's performance. 2. the mediating effect of competitive advantage between quality management, knowledge management and firm's performance.

Keywords: Food and beverage industry, quality management, knowledge management, competitive advantage and firm's performance.

INTRODUCTION

This study was conducted from the fact that Food and Beverage Industry in Indonesia had a significant contribution on Product Domestic Brutto of Indonesia. In the year of 2000 the contribution is 8.1% of Product Domestic Brutto, but in the year of 2016 it is only 6.9%. Food and Beverage Industry is contributing significantly but its contribution is decreasing during past fifteen years.

Government stimulus had been launched in the form of BMDTP or free import duty policy for this sector of industry in the year of 2008, but the result was not satisfactorily. There were several obstacles in Food and Beverage industry in Indonesia, for instances are restricted supply and variety of raw materials, production process is not adequate, labels that mentioning date of production, date of expiration, compositions are neglected and the rush of imported food and beverage which is superior in price and quality (The Indonesian Institute, 2917, HumasKemenkopdan UKM, 2016).

The suggestions of Minister of Cooperations and UKM of Indonesia, in order that Indonesian Food and Beverage Industry to strengthen and enhance their quality and variety of the products (HumasKemenkopdan UKM, 2016).

If the Food and Beverage industry in Indonesia want to success in the market, they have to have so called Competitive Advantage. A firm has a competitive advantage when it is able to create more economic value than the marginal (breakeven) firm in its industry. Economic value is the difference between the perceived benefits gained by the purchasers of the good and the economic cost to the enterprise (Barney, 2006).

For the anticipation of market turbulence, the competitive advantage has to be equipped with so called Dynamic Capability. Dynamic capability is the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments (Teece, 1997).

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

In searching the source of competitive advantage with dynamic capability approach, the role of quality management and knowledge management are crucial. Quality management and knowledge management are distinctive organizational capabilities, precursor in creating sustainable competitive advantage (Elshaer, 2016; Khan, 2014).

The objectives of this research are: To analyse the effects of quality management and knowledge management on firm's performance via mediating variable competitive advantage in Indonesian Food and Beverage Industry.

LITERATURE REVIEW

RBV Theory

The resourced-based approach sees firms with superior systems and structures being profitable not because they engage in strategic investments that may deter entry and raise prices above long-run costs, but because they have markedly lower costs or offer markedly higher quality or product performance.

From resourced-based perspective, firms are heterogenous with respect to their resources/ capabilities/ endowments. A firm is more than an administrative unit, it is also a collection of productive resources the disposal of which between different uses over time is determined by administrative decision (Penrose, 1959; Hoskisson, 1999).

Quality Management Theory

Quality management is defined as a systematic way of guaranteeing that organized activities happen the way they are planned (Kafetzopoulos, 2015).

The paradigms of quality management develops from the early stage to the total quality management of today. Following are the stages :Quality inspection – quality control – quality assurance – quality management – total quality management (Weckenmann, 2013).

Knowledge Management Theory

According to Rosenberg (2006) the knowledge management is defined as : The Knowledge management is the creation, archiving, and sharing of valued information, expertise, and insight within and across communities of people and organizations with similar interests and needs, the goal of which is to build competitive advantage (Chatti, 2012).

Nonaka and Takeuchi (2005) adopt a dynamic model of Knowledge management, view knowledge as a flow rather than object and focus on knowledge creation, collaboration and practice as opposed to knowledge management. This knowledge creation model has been referred to as SECI model, which encompasses four different model of knowledge creation, namely : Socialization – Externalization – Combination – Internalization (Chatti, 2012).

Competitive Advantage Theory

Competitive advantage can be defined as : An enterprise has a competitive advantage if it is able to create more economic value than the marginal (breakeven) competitor in its product market. The economic value is the difference between the perceived benefits gained by the purchasers of the good and the economic cost to the enterprise (Barney, 2009).

Firm's Performance

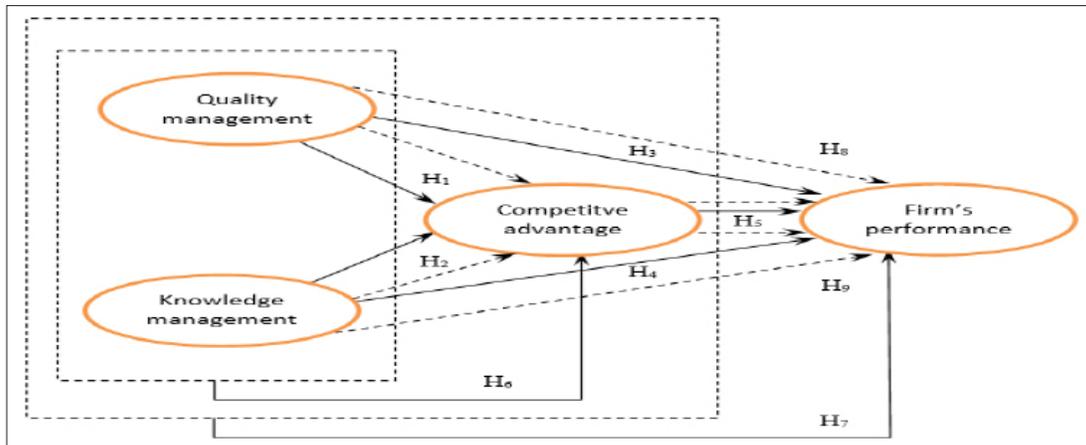
Firm performance is defined as :The fulfillment or accomplishment of a promise, contract, or other obligation according to its terms (Business Dictionary by Farlex).

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

Three types of performance measures are used regularly in the strategy literature :

1. objective financial performance (ROA & ROI).
2. subjective financial performance (sales & profitability),
3. subjective nonfinancial performance (marketing & market share) (Newbert, 2008).

Framework



Hypothesis

- H1.** Quality management positively affect on competitive advantage.
- H2.** Knowledge management positively affect on competitive advantage.
- H3.** Quality management positively affect firm's performance.
- H4.** Knowledge management positively affect on firm's performance.
- H5.** Competitive advantage positively affect on firm's performance.
- H6.** Quality management and knowledge management all together positively affect on competitive advantage.
- H7.** Quality management, knowledge management and competitive advantage all together affect on firm's performance.
- H8.** Quality management positively affect on firm's performance via competitive advantage mediation.
- H9.** Knowledge management positively affect on firm's performance via competitive advantage mediation.

RESEARCH METHODOLOGY

Research Design

This research is a survey to examine the hypothesis of the effects of quality management and knowledge management on competitive advantage and firm's performance, and the effect of competitive advantage on firm's performance and the relation between all variables are causal.

The research is carried out in Indonesian Food and Beverage Industry which are registered in GAPMMI year book 2013. The analysis unit here is one food and beverage company, represented by the CEO or manager of the company. Time dimension of this research is cross sectional. The data obtained are processed and analyzed with tools of Structural Equation Modelling (SEM).

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

Variable Measures

Quality Management

Quality management consists of three dimensions : Leadership and top management support, Process management, Supplier management. Each dimension contains three indicators statements adopted from Elshaer (2016) and Kafetzopoulos (2015), and adjusted to the situation of Food and Beverage Industry in Indonesia. Measures use Five Likert Scale.

Knowledge Management

Knowledge management consists of three dimensions : Knowledge creation, Knowledge transfer and storage, Knowledge application and use. Each dimensions contains three indicator statements adopted from Fernandez (2015) and Ranjbarfard (2014), and adjusted to the situation of Food and Beverage Industry in Indonesia.

Competitive Advantage

Competitive advantage consists of three dimensions :Reduction of costs, Neutralization of competitive threats, Exploitation of market opportunities. Each dimensions contains three indicator statements adopted from Sigalas (2013) danNewbert (2008), and adjusted to the situation of Food and Beverage Industry in Indonesia.

Firm's Performance

Subjective non-financial firm's performance consists of three dimension : Product quality performance, Financial performance, Customer satisfaction performance. Each dimension contains three indicator statements adopted from Psomas (2014) and Newbert (2008), and adjusted to the situation of Food and Beverage Industry in Indonesia.

Sample and Data Collection

Population of food and beverage industry firms in Indonesia is estimated around 6000 of various size of the firms. But only 1500 are registered in GAPMMI year book 2013. From 500 of questionnaire distributed, only 386 are responded. And 26 questionnaire are deleted due to uncomplete filling, only 360 questionnaire are used.

Validity and Reliability Results

No.	Variable and dimensions.	Standardized loading factor $\lambda > 0.70$	Cronbach Alpha > 0.60
01.	Quality management		0.949
	Top management support	0.87	
	Process management	0.99	
	Supplier management	0.93	
02.	Knowledge management		0.965
	Knowledge creation	0.98	
	Knowledge transfer and storage	0.96	
	Knowledge application and use	0.97	
03.	Competitive advantage		0.983
	Reduction of costs	0.98	
	Neutralization of competitive threats	0.95	
	Exploitation of market opportunities.	0.99	
04.	Firm's performance		0.964
	Product quality performance	0.98	
	Financial performance	0.99	
	Customer satisfaction performance	0.94	

Source : Output of validity and reliability test with SPSS22 and Lisrel8.80.

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

TEST RESULTS

Parameter Estimations

Hn	Hypothesized path	Standardized path coefficient $0.0 \leq \beta \leq 1.0$ (partial correlation)	t-Value >1.96 (significancy)	Decisions.
H1	Quality mgt. → competitive advantage	0.37	2.59	Supported
H2	Knowledge mgt. → competitive advantage	0.48	3.40	Supported
H3	Quality mgt. → firm's performance	0.35	3.33	Supported
H4	Knowledge mgt. → firm's performance	0.24	2.55	Supported
H5	Comp.advantage → firm's performance	0.41	5.86	Supported
H6	(Quality mgt. + knowledge mgt.) → comp.advantage	R square (Coeff. determination) 0.68	Fcalculated 192.651 Ftable 3.02	Supported
H7	(Quality mgt. + knowledge mgt. + comp. advantage) → firm's performance.	R square (Coeff. determination) 0.89	Fcalculated 474.165 Ftable 2.63	Supported
H8	Quality mgt. → firm's performance. (via competitive advantage)	0.15 (0.37 x 0.41)	2.51	Supported
H9	Knowledge mgt. → firm's performance. (via competitive advantage)	0.20 (0.48 x 0.41)	2.95	Supported

Source: OutputLisrel 8.80

CONCLUSIONS, MANAGERIAL AND THEORITICAL IMPLICATIONS, AND SUGGESTIONS FOR FUTURE RESEARCHERS

Conclusion

1. Quality management influence on competitive advantage. The influence of quality management towards competitive advantage is positive and significant.
2. Knowledge management influence on competitive advantage. The influence of knowledge management towards competitive advantage is positive and significant.
3. Quality management firm's effect on performance. The influence of quality management against firm's performance is positive and significant.
4. Knowledge management influence on firm's performance. The influence of knowledge management against firm's performance is positive and significant.
5. Competitive advantage influence on firm's performance. The influence of competitive advantage against firm's performance is positive and significant.
6. Quality management and knowledge management are jointly influence competitive advantage. The influence of quality management and knowledge management are jointly against the competitive advantage is positive and significant.

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

The Managerial Implications

Quality Management

The manager of the company, the need to maintain things that are already good and the improves things still lacking in an effort to increase the effectiveness of quality management. As for things that need to be maintained to enhance quality management among others are: the support of the leadership and top management to carry out quality management, product quality is always referenced with the standard product quality, product quality always discussed in meeting management.

While the things that should be improved are: quality control techniques should be able to suppress the variation of production results, fostering good relations with major suppliers, requiring suppliers in new product development process.

Knowledge Management

The manager of the company, the need to maintain things that are already good and the improves things still lacking in an effort to increase the effectiveness of knowledge management. As for things that need to be maintained to enhance knowledge management among others are: the company has a database system to store the knowledge from various sources, the company regularly collects information from various sources , the company has a specific procedure to allot of knowledge for employees.

While things have to be improved are: the employee is allowed to give advice in order to formulate a new strategy of the company, a key employee turnover does not impact the loss of vital corporate capability, in solving problems companies can adopt recommendations related employees.

Competitive Advantage

The manager of the company, the need to maintain things that are already good and the improves things still lacking in an effort to increase competitive advantage. As for things that should be preserved in order to maintain a competitive advantage is like: the company must remain capable of lowering total costs faster than competitors, companies must remain able to neutralize the threat of competition, company must remain being able to master the market opportunity exceeding competitors.

While things have to be improved are : the company's ability to master all market opportunities, the company's ability to lower operational costs faster than competitors, the company's ability to master fully the opportunities the market.

Firm's Performance

The manager of the company, the need to maintain things that are already good and the improves things still lacking in an attempt to improve firm's performance. As for things that should be preserved to maintain the firm's performance is like: the company should still managed to achieve customer loyalty that is marked with a repeat order, retain, recommend. the company must remain capable of producing the product content label food & beverage according to specifications, the company must remain able to produce appropriate quality standard food & beverage.

While things have to be improved are : the company's ability to continually improve customer satisfaction through product packaging food & beverage appearance, the company's ability to continually improve customer satisfaction through the acceleration returns the product expires, the company's ability to keep producing a delicious flavored food & beverage.

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

The Theoretical Implications

1. The synergy model quality management and knowledge management can all together affect competitive advantage. This is apparent in support of Hypothesis 6. This means that basis synergize with quality management and knowledge management can impact on competitive advantage.
2. In this model of quality management can affect performance through the mediation of competitive advantage, it is visible in support of Hypothesis 8. It means an increase in the influence of total quality management against firm's performance is caused by the presence of variable mediation competitive advantage.
3. In this model of knowledge management can impact performance through the mediation of competitive advantage, it is visible in the support for the Hypothesis 9 that meant an increase in the influence of total effect knowledge management against firm's performance is caused by the presence of variable mediation competitive advantage.

The Limitations and Suggestions for Researchers to Come

Limitations

1. The respondents are not shared in the Size of the company, meaning that food and beverage companies large and small are put together in this research.
2. The respondent is only drawn from the book Food Directory GAPMMI 2013, whereas the fact other than members GAPMMI there is still a lot more food and beverage manufacturers large and small that have not been recorded.
3. Free Variables used are limited in quality management and knowledge management.

Advice for researchers to come are

1. Use a list of Indonesian food and beverage companies of a more complete and fall into the category of Size of the company.
2. Search for other free variables that could affect the competitive advantage and firm's performance, e.g. the implementation of the principle of Kaizen and Lean manufacturing (Patyal, 2016).

REFERENCES

- Adams, GL, and Lamont, BT. (2003). Knowledge management systems and developing sustainable competitive advantage. *Journal of knowledge management*.7(2):142-154.
- Amit, R., Schoemaker, PJH., (1993). Strategic assets and organizational rent. *Strategic management journal*.14:33-46.
- Andreeva, T, Kianto, A. (2012). Does knowledge management really matter? Linking knowledge management practices, competitiveness and economic performance. *Journal of Knowledge Management*, 16(4): 617-636.
- Augustine, Y, Kristaung, R., (2013). Metodologi Penelitian Bisnis dan Akuntansi. *Penerbit Dian Rakyat*.
- Baird, K. (2011). The relationship between organizational culture, TQM practices and operational performance. *International Journal of Operation 7 Production Management*, 31(7):789-814.
- Barney, JB., (2006)., Resource-Based Theory, *Oxford University Press*.
- Beesley, LGA and Cooper, C., (2008). Defining knowledge management (KM) activities: towards consensus. *Journal of knowledge management*. 12(3):48-62.

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

- Bhojaraju, G. (2005). Knowledge management: Why do we need it for corporates. *Malaysian Journal of Library & Information Science*, 10(2): 37-50.
- Bisnis UKM, (2016), Industri Makanandan Minumanjadi motor pertumbuhanekonomi 2017. *Bisnis UKM.com*.
- Cefic, (2011), World Chemicals Sales: Geographic Breakdown, *Fact and Figures*.
- Chatti, M.A. (2012). Knowledge management: a personal knowledge network perspective. *Journal of Knowledge Management*, 16(5): 829-844.
- Chikati, R. et al, (2013). Developing sustainable competitive advantage through knowledge management. *International Journal of Scientific & Technology research*,2(10).
- Choi, TY., (1998). The TQM paradox: Relation among TQM practices, plant performance, and customer satisfaction. *Journal of Operation Management*.17(1):59-75.
- Chong, CW. Et al. (2011). Inter-organizational knowledge transfer needs among small and medium enterprises. *Libraryreview*.60(1):37-52.
- Conner, KR. (1991). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm ?. *Journal of management*.17(1):121-154.
- Cooper, DR., (2006). Metode Riset Bisnis Volume 1. *Mc Graw-Hill Irwin*.
- Cooper, DR.,(2006). Metode Riset Bisnis Volume 2. *Mc Graw-Hill Irwin*.
- Dow, D. et al., (1999). Exploding the myth; do all quality management practices contribute to superior quality performance?. *Production and Operation Management* 8(1):1-27.
- Dubey, R. (2015). Exploring soft TQM dimensions and their impact on firm performance: some exploratory empirical results.*International Journal of Production Research*.53(2):371-382.
- Elassy, N. (2013). The concepts of quality, quality assurance and quality enchancement. *Quality assurance in education*. 23(3):250-261.
- Elshaer, I. A., Augustyn, M. M. (2016). Direct effect of quality management on competitive advantage. *International Journal of Quality & Reliability Managenent*. 33(9): 1286-1310.
- Endarwati, O., (2016). Industri Maminjadimtrpertumbuhanekonomi 2016. *Ekbis.sindonews.com*
- Fernandez, M.G. (2015). How to measure knowledge management: dimensions and model. *Vine*, 45(1): 107-125.
- Firestone, JM., (2005), Defining knowledge management, *Strategic Direction*, 21(10):22-24.
- GAPMMI, (2013), Food Industry Directory 2012-2013, *GAPMMI Secretariat*.
- Ghozali, I., (2013). Aplikasi Analisis Multivariate dengan Program IBM SPSS21.*ISBN:979.704.300.2. Badan Penerbit Universitas Diponegoro*.
- Ghozali, I., (2013). Teknik Penyusunan Skala Likert. *Penerbit Fatawa Publishing, Badan Penerbit Universitas Diponegoro*.
- Hanifah, S., (2016). Kontribusi sector industry terhadap PDB capai 17.82 persen. *Merdeka.com*
- Hinterhuber, A., (2013). Can competitive advantage be predicted? *Management decision*. 51(4):795-812.
- Honarpour, A. & Jusoh, A., Long, C.S. (2017). Knowledge management and total quality management: a reciprocal relationship. *International Journal of Quality & Reliability Management*, 34(1): 91-102.

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

- Hoskisson, R.E., Hitt, M.A., *et al.*, (1999). Theory and research in strategic management: Swings of pendulum. *Journal of management*. 25(3):417-456.
- Indonesian Institute, The, (2017). AnalisispetaindustriMakanandanminuman di Indonesia.
- ISO Quality, (2017), Quality management principles, *ISO Organization*.
- Jenkins, M., Ambrosini, V., (2007), Advanced Strategic Management. *Palgrave Macmillan*.
- Kafetzopoulos, D., *et al.*, (2011), Quality systems and competitive performance of food companies, *Benchmarking: an International Journal*, 20(4):463-483.
- Kafetzopoulos, D., *et al.*, (2015). Relationship between quality management, innovation and competitiveness. Evidence from Greek companies. *Journal of manufacturing technology management*. 26 (8): 1177-1200.
- Kamukama, N., Ahaiauzu, A., Ntayi, J.M. 2011. Competitive advantage: mediator of intellectual capital and performance. *Journal of Intellectual Capital*, 12(1): 152-164.
- Kementerian Koperasi dan Usaha Kecil dan Menengah Republik Indonesia, (2016). Pengusahapangan local jangantakutbersaingdenganasing. *Humaskemenkopdan UKM*, 25.10.2016.
- Kementerian Perindustrian Republik Indonesia, (2015), Industri Makanan-Minuman Diperkuat, *Koran SINDO*, 09.04.2015.
- Kementerian Perindustrian Republik Indonesia, (2016), Industri Makanan Minuman Kontribusi Persendiri PDB Indonesia, *Food Ingredients Asia 2016: Suara.com*.
- Kementerian Perindustrian Republik Indonesia, (2017), Industri Makanan dan Minuman RI sumbang PDB Rp 540 Triliun, *Detik Finance*.
- Khan, R.A., (2014). Sustainable competitive advantage through knowledge management. *International journal of advanced research in computer, engineering & technology*. 3(4).
- Khasseh, A. A. & Mokhtarpour, R. (2016). Tracing the historical origins of knowledge management issues through referenced publication years spectroscopy (RPYS). *Journal of Knowledge Management*, 20(6): 1393-1404.
- Klingenberg, B. (2013). The relationship of operational innovation and financial performance. *International Journal of Production Economics*.142(2):317-323.
- Lau, A.N., Jamaludin, M.H., (2016), Quality assurance and halal control points for the food industry, *Nutrition & Food Science*, 46(4):557-570.
- Lee, C.S., Wong, K.Y., (2014). Development and validation of knowledge management performance measurement construct for small and mediu enterprises. *Journal of Knowledge Management*.19(4):711-734.
- Lemmink, J., Kasper, H., (1994). Competitive Reactions to Product Quality Improvements in Industrial Markets. *European Journal of Marketing*.28(12):50-68.
- Levine, S.S., Prietula, M.J.,(2011). How knowledge transfer impacts performance: A multilevel model of benefits and liabilities. *Organization science. Articles in advance*.pp.1-19.
- Li, Y.H.*et al.*, (2008). Entrepreneurial orientation and firm performance: The role of knowledge creation process. *Industrial Marketing Management*.
- Lin, C., Tsai, H.L., (2016). Achieving a firm's competitive advantage through dynamic capability. *Baltic journal of management*. 11(3):260-285.
- Lisa, G.A., Beesley, & Cooper, C. 2008. Defining knowledge management (KM) activities: towards consensus. *Journal of Knowledge Management*, 12(3):48-62.

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

- Lyons, K., Ascente, D., & van Waesberghe, M. (2008). Integrating knowledge management and quality management to sustain knowledge enabled excellence in performance. *The journal of information and knowledge management systems*, 38(2): 241-253.
- Ma, H. (1999). Constellation of competitive advantage: components and dynamics. *Management Decision*, 37(4): 348-355.
- Majeed, S. (2011). The impact of Competitive Advantage on Organizational Performance. *European journal of Business and Management*, 3(4).
- Mandal, P., Bagchi, K. (2016). Strategic role of information, knowledge and technology in manufacturing industry performance. *Industrial Management & Data Systems*, 116(6): 1259-1278.
- Marques, D. P., & Simon, F. J. (2006). The effect of knowledge management practices on firm performance. *Journal of Knowledge Management*, 10(3): 143-156.
- Massingham, P., (2014). An evaluation of knowledge management tools: Part 1- managing knowledge resources. *Journal of Knowledge Management*, 18(6):1075-1100.
- Mehra, S., & Coleman, J.T., (2015). Implementing capabilities-based quality management and marketing strategies to improve business performance. *International journal of quality & reliability management*. 33(8): 1124-1137.
- Moges, B., (2014). Adoption of quality management practices: An investigation of its relationship with labor productivity for labor-intensive manufacturing companies. *Benchmarking: An International Journal*. 21(1):77-100.
- Moliner, J. P. et al., (2016). Organizational design, quality management and competitive advantage in hotels. *International Journal of Contemporary Hospitality management*. 28(4): 762-784.
- Motwani, J., (2001), Measuring critical factors of TQM, *Measuring Business Excellence* 5, 2, 2001: 27-30.
- Murphy, WH. (2016), Quality management (QM) leads to healthier small businesses, *Journal of Small Business and Enterprise Development*, 23(4):1104-1119.
- Newbert, S., (2008). Value, rareness, competitive advantage, and performance: a conceptual-level empirical investigation of the resource-based view of the firm. *Strategic management Journal*. 29(1): 745-768.
- O'Neil. P. et al., (2016). Quality management approaches and their impact on firm's financial performance- An Australian study. *International Journal of Production Economics*.171(3):381-393.
- O'Shannassy, T. (2008). Sustainable competitive advantage or temporary competitive advantage. *Journal of Strategy and Management*, 1(2): 168-180.
- O'Shaughnessy, N.J. 1996. Michael Porter's Competitive Advantage revisited. *Management Decision*, 34(6): 12-20.
- Oltra, MJ.,Flor, ML., (2010). The moderating effect of business strategy on the relationship between operations strategy and firm's results.*International Journal of Operation & Production Management*, 30(6):612-638.
- Patyal, V.S., Koilakunthla, M. (2017). The impact of quality management practices on performance: an empirical study. *Benchmarking: An International Journal*, 24(2): 511-535.
- Patyal, VS., Koilakunthla, M. (2015). Interrelationship between TQM and Six Sigma: A review.*Global Business Review*. 16(6):1025-1060.
- Powell, T.C. (1993). Total quality management as competitive advantage: A review and empirical study. *Strategic management journal*. 16(1): 15-37.

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

- Psomas, E., Kafetzopoulos, D. (2014). Performance measures of ISO 9001 certified and non-certified manufacturing companies. *Benchmarking: An International Journal*, 21(5): 756-774.
- Raharja, P., Manurung, M., (2008). Teori Eknomomi Makro. *Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia*.
- Ranjbarfard, M *et al*, (2014). The barriers of knowledge management generation, storage, distribution and application that impede learning in gas and petroleum compaies. *Journal of knowledge management*, 18(3): 494-522.
- Riratanaphong, C., (2015)., Measuring the added value of workplace change, *Emerald Facilities*, 33(11-12):773-792.
- Sarwono, H. (2014). Pengantar Ilmu Ekonomi Mikro. *PT. Buku Seru*.
- Savolainen, TI., (1999). Cycles of continuous improvement. *International Journal of Operation & Production Management*, 19(11):1203-1222.
- Schiuma, G., (2012). Managing knowledge processes for value creation. *The journal of information and knowledge management systems*. 42(1):4-14.
- Shafer, SM., *et al*, (2012). The effects od Six Sigma on corporate performance: An empirical investigation. *Journal of Operation Management*. 30(7): 521-532.
- Sharkie, R. (2003). Knowledge creation and its place in the development of sustainable competitive advantage. *Journal of Knowledge Management*, 7(1): 20-31.
- Shenawy, EE., (2005). A meta-analysis of the effect of TQM on comoetitive advantage. *International Journal of Quality & Reliability Management*. 24(5): 442-471.
- Sigalas, C. (2015). Competitive advantage: the known unknown concept. *Management Decision*. 53(9): 2004-2016.
- Sigalas, C., Economou, V.P. & Georgopoulos, N.B. 2013. Developing a measure of competitive advantage. *Journal of Strategy and Management*, 6(4): 320-342
- Silvi, R., Cuganesan, S. (2006). Investigating the management of knowledge for competitive advantage. *Journal of Intelectual Capital*. 7(3): 309-323.
- Singh, MD., (2006). Survey of knowledge management practices in Indian manufacturing industries. *Journal of Knowledge Management*. 10(6):110-128.
- Sinha, N., *et al*, (2015). Mapping the linkage between organizational culture and TQM: the case of Indian auto component industry. *Benchmarking: An International Journal*. 23(-): 10.
- Sohal, AS *et al*, (2000). TQM in Australian manufacturing: factors critical to success. *International Journal of Quality & Reliability Management*. 17(2): 158-167.
- Spiegel, M., (2005). Development of the instrument IMAQE-Food to measure effectiveness of quality management. *International Journal of Quality & Reliability Management*, 22(3): 234-255.
- Teece, D.J., Pisano, G. and Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*.18(7):509-533.
- Teti, E., Perrini, F., (2014), Competitive startegies and value creation; a twofold perspective analysis, *Journal of Management Developments*, 33(10): 949-976.
- UKM Mamin, (2016), Daftar UKM Mamin (Makanan&Minuman).
- Van der Bij, H., van Eckert, HW. (1999). Interaction between production control and quality control. *International journal of operations & productions management*.19(7): 674-690.

The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable

- Vorley, ZKT, (2017). Big data text analytics: an enabler of knowledge management. *Journal of Knowledge Management*. 21(1): 1.
- Wang, Z., et al., (2015). The impact of intellectual capital-knowledge management strategy fit on firm performance. *Management Decisions*. 54(8): 1861-1885.
- Watts, G. et al. (1998). Ansoff's matrix, pain and gain. *International journal of entrepreneurial behavior & research*. 4(2): 101-111.
- Weckenmann, A., Akkasoglu, G. & Werner, T. 2015. Quality management - history and trends. *The TQM Journal*, 27(3): 281-293.
- Widarjono, A., Analisis Multivariat Terapan, (2015), *UPP STIM YKPN*.
- Wu, S.J., (2015). The impact of quality culture on quality management practices and performance in Chinese manufacturing firms. *International journal of quality & reliability management*. 32(8): 799-814.
- Yang, J., (2008). Managing knowledge for quality assurance: an empirical study. *International journal of quality & reliability management*. 25(2): 109-124.
- Yu, Q., Wang, K., (2013), 3D vision based quality inspection with computational intelligence, *Assembly Automation*, 33(3): 240-246.
- Zatzick, CD, et al., (2012). Strategic misfit: the implementation of TQM in manufacturing organization. *Strategic Management Journal*. 33(11): 1321-1330.
- Zeng, J. et al., (2015). The impact of hard and soft quality management on quality and innovation performance: An empirical study. *International Journal of Production Economics*. 165(4): 216-226.
- Zhang, Z., (2000). An instrument for measuring TQM implementation for Chinese manufacturing companies. *International Journal of Quality & Reliability Management*. 17(7): 730-755.
- Zu, X. et al., (2010)., Mapping the critical links between organizational culture and TQM/Six Sigma practices. *International Journal of Production Economics*. 123(1): 86-106.
- Zubac, A., Hubbard, G. Johnson, LW. (2010). The RBV and value creation: a management perspective. *European Business Review*. 22(5): 515-539.

Citation: Paul Lie Hian Keng, Asep Hermawan, Agustinus Sri Wahyudi. "The Impact Quality Management and Knowledge Management on Firm's Performance with Competitive Advantage as a Mediating Variable" *American Research Journal of Business and Management*. 2018; 4(1): 1-12.

Copyright © 2018 Paul Lie Hian Keng, Asep Hermawan, Agustinus Sri Wahyudi. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.