

# Analysis of Integrated Quality Management, Innovation Capability, Organizational Culture, Social Capital, and Sustainable Performance of Village Owned Business Entities in *Klaten* Regency, Central Java

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**Abstract.** This study aimed to examine confirmatory factor analysis of integrated quality management, innovation capability, organizational culture, social capital, and sustainable performance of village-owned enterprises in *Klaten* Regency, Central Java. The population in this study were the directors of Village Owned Enterprises (*BUMDes*) in *Klaten* Regency, amounting to 354 *BUMDes* with a sample of 190 BUM Des directors. The data analysis used in this research is Confirmatory Factor Analysis. The results of the study indicate that the indicators of human resources are dominant in shaping quality management. Structuring of dominant organizational ideas forming innovation capability. Kconsistencydominant shaper of the corporate culture. Information disclosure is the dominant form of social capital. Economic sustainability is the chief shaper of sustainable performance.

**Keywords:** Integrated Quality Management · Innovation Capability · Organizational Culture · Social Capital · Sustainable Performance

### 1 Introduction

The village is one of the minor units that have direct contact with the community. To date, there are more than 32 thousand villages out of a total of 74,093, including the category of underdeveloped villages [1]. By passing Law Number 6 of 2014 Concerning Villages, the central government made significant strides in the framework of policy for village development and management. 2014 Law No. 6 Concerning Villages. As a result, the concept of creating village-owned businesses (*BUMDes*) was implemented as a way to implement local economic drivers. [2] explains that the existence of sustainable *BUMDes* is needed to mobilize village potential and can help in poverty alleviation efforts. [3] argues that *BUMDes* that have sustainable performance assessed by the community have an impact on increasing income and providing job opportunities. Different opinions are

shown by [4, 5], and [6] that the existence of *BUMDes* has not demonstrated an optimal role in improving the welfare of rural communities.

Based on the phenomenon shown by *BUMDes*, efforts are needed so that *BUMDes* have Sustainability Performance [7]. Continuous performance is assessed as a unity between the social, economic, and environmental objectives of the company's activities that can increase the value of the company [8]. Sustainable performance components, including environmental, social, and governance components, are linked to various stakeholders [9].

[10] explain that achieving sustainable performance requires a leadership and management approach adopted by the company so that it can provide social, environmental, and economic results. [11–13] shows that the achievement of sustainable performance can be through integrated quality management. [43] consider integrated quality management as a strategic element and argue that processes as part of integrated quality management can ensure sustainable performance in the business. Six dimensions of leadership, strategic planning, customer focus, process management, human resource management, and information and analysis are described by [14, 15], and [16]. Meanwhile, [17] outlined integrated quality management indicators, which comprise human resource management, process management, customer focus, leadership, strategic planning, and information and analysis.

In today's competitive global environment, in achieving continuous improvement embodied in integrated quality management, innovation is needed. Innovation capability is seen as necessary for performance that can be improved and achieve sustainability [18–21], and [22] explain that the indicators of innovation ability include participatory leadership culture, structuring ideas and organizations, work climate and welfare, understanding of development, regeneration, and knowledge of external and individual activities.

Organizational cultural fit allows for increased business effectiveness [44]. This is expected to have a positive impact on external adaptability and internal harmony that enables the point of the company or organization. [23, 24, 39], and [25] explain that organizational culture indicators are measured by involvement, consistency, adaptability, and mission.

Achieving sustainability in an organization or company requires one of the main factors, namely social capital [40]. Networks, trust, and reciprocity that exist between employees and between firms make up social capital, an intangible asset of an organization [26]. [27] Shiri *et al.* (2012), [28] Lesser (2000), [29] and [27] Shiri *et al.* (2012) are a few sources that discuss social capital indicators, which include social networks, information sharing, social involvement, social values, and social trust. Based on the background, this study examines the confirmatory factors of integrated quality management, innovation ability, organizational culture, social capital, and Sustainability Performances. Novelty in this study is to test the strongest indicators of integrated quality management variables, innovation capabilities, organizational culture, social capital and Sustainability Performance as the development of management science.

### 2 Research Method

The population in this study were the directors of Village Owned Enterprises (BUM Des) in *Klaten* Regency, totaling 354 directors of *BUMDes*. The sampling technique in this study uses the Purposive Sampling technique and the criteria in determining the research sample of Village Owned Enterprises (*BUMDes*), which are in the Developing, Growing, and Advanced category in accordance with the assessment of the *BUMDes* Development Indicators (IP-*BUMDes*) given by the Village Community Empowerment Agency, *Klaten* Regency, Central Java Province. Developing category if the *BUMDes* IP is less than 50, *BUMDes* Grows if it has a *BUMDes* IP ranging from 51 to 75. Advanced *BUMDes* if it has more than 75 *BUMDes* IP based on these criteria, the number of research samples is 190 *BUMDes* directors.

The research variables were measured using a Likert scale model. The data analysis used in the study used a CFA analysis technique called the measurement model in the perspective of Structural Equation Modeling (SEM), focusing on the relationship between the factors and all the variables measured.

### 3 Result and Discussion

#### 3.1 Confirmatory Factor Analysis Results

Measurement results on indicators that can form integrated quality management variables, innovation capabilities, organizational culture, social capital, and *sustainability*. *Performance* with Confirmatory Factor Analysis is explained in Table 1.

Based on Table 2, it can be explained that all of these indicators are essential indicators for forming integrated quality management, innovation capabilities, organizational culture, social capital, and Sustainability Performances. Furthermore, when viewed from the value of the loading factor of each indicator, the indicator of human resources is dominant in forming quality management. This result can be explained that BUMDes in Klaten Regency will have good quality management if the BUMDes Director has participatory human resource management in BUMDes empowerment and active participation in BUMDes management operations. Structuring of dominant organizational ideas forming innovation capability. These results can be explained that BUM Des in Klaten Regency will have good innovation capabilities if the BUMDes Director implements innovations regarding the organizational work tasks that have been set and flexibility and openness in the organization help encourage the emergence of new ideas. Kconsistencydominant shaper of the corporate culture. These results can be explained that BUM Des in Klaten Regency has an excellent organizational culture if the BUMDes Director understands the values of the organization and has a shared awareness to find solutions to every problem. Information disclosure is the dominant form of social capital. This result can be explained that BUMDes in Klaten Regency will have good social money if the BUMDes Director participates in obtaining information and knowledge in various fields and participates in organizational programs with colleagues and village communities. Economic sustainability is the dominant shaper of sustainable performance.

Variable	Indicator	Source	
Integrated Quality Management	Leadership Management	[14, 15, 16]	
	Strategic Planning		
	Customer Focus		
	Process Management		
	Human Resources		
	Culture and Communication		
	Social and environmental responsibility		
Innovation Ability	Participatory Leadership Culture	[20-22]	
	Structuring ideas and organization		
	Work climate and welfare.		
	Understanding in development		
	Regeneration		
	Knowledge of external		
	Individual activities		
Organizational culture	Involvement	[19, 23–25]	
	Consistency		
	Adaptive		
	Mission		
Social capital	Social Values	[27–29];	
	Believe in social		
	Social network		
	Social Cohesion		
	Social Participation		
	Information Disclosure		
	Social communication		
Sustainability Performance	Environmental Sustainability	[45-48]	
	Social Sustainability		
	Economic Sustainability		

Table 1. Operational Matrix of Research Variables

Indicators and Variables				
Leadership Management	>	Integrated Quality Management	0.361	
Strategic Planning	>	Integrated Quality Management	0.485	
Customer Focus	>	Integrated Quality Management	0.744	
Process Management	>	Integrated Quality Management	0.767	
Human Resources	>	Integrated Quality Management	0.782	
Communication	>	Integrated Quality Management	0.636	
Social responsibility	>	Integrated Quality Management	0.704	
Participatory Leadership	>	Innovation Ability	0.729	
Structuring organizational ideas	>	Innovation Ability	0.784	
Working Climate	>	Innovation Ability	0.524	
Understanding in development	>	Innovation Ability	0.563	
Regeneration	>	Innovation Ability	0.267	
Knowledge of external	>	Innovation Ability	0.196	
Individual activities	>	Innovation Ability	0.267	
Involvement	>	Organizational culture	0.891	
Consistency	>	Organizational culture	0.944	
Adaptive	>	Organizational culture	0.880	
Mission	>	Organizational culture	0.890	
Social Value	>	Social Capital	0.735	
Social trust	>	Social Capital	0.661	
Social network	>	Social Capital	0.761	
Social cohesion	>	Social Capital	0.797	
Social participation		Social Capital	0.784	
Information Disclosure	>	Social Capital	0.813	
Social Communication	>	Social Capital	0.762	
Environmental Sustainability	>	Sustainable Performance	0.890	
Social sustainability	>	Sustainable Performance	0.891	
Economic sustainability	>	Sustainable Performance	0.941	

**Table 2.** Factors Loading  $(\lambda)$  Measuring Variables of Integrated Quality Management, Innovation Ability, Organizational Culture, Social Capital, and Sustainability Performance

# 4 Discussion

Integrated quality management is an integrated effort designed to improve Quality at every level within the company [42]. Integrated quality management implies an ongoing, integrated and continuous effort to improve quality and customer satisfaction throughout the organization as a whole, where management commitment is an essential basis for

the success of the five fundamental values that make up integrated quality management described by Bergman and Klefjso as the cornerstone. The effectiveness of integrated quality management in Village Owned Enterprises (*BUMDes*) in *Klaten* Regency, Central Java Province, if *BUMDes* in implementing integrated quality management can be used as a combination of all functions of the organization into a holistic philosophy that is built based on the concept of human resource development such as participatory in *BUMDes* empowerment and active participation in *BUMDes* management operations. This idea is in line with [30] assertion that, generally speaking, elements of successfully implementing integrated quality management can be derived from four different theoretical areas: quality leader work, formal reward models, descriptive approach, and empirical research.

According to [21], an organization's capacity for innovation is determined by a combination of its innovation behavior, strategic competencies, and internal technology processes. Improving the ability of invention carried out by *BUMDes* in *Klaten* Regency, Central Java Province, can be done by structuring organizational ideas such as implementing innovations about predetermined administrative work tasks and flexibility and openness in the organization, helping encourage the emergence of new ideas. This idea is consistent with [18] and [32] views on the importance of innovation for performance that can be sustained and enhanced. Only when a corporation has the capacity to innovate can innovation take place [31].

A typical definition of organizational culture is that it is a lens through which company strategy is developed and carried out. Building a corporate culture is essential for success [33]. The success of *BUMDes* in *Klaten* Regency, Central Java Province, in carrying out organizational culture is shown by: consistency, such as the Director of *BUMDes* understands the values of the organization and has a shared awareness to find solutions to every problem. This idea is in line with [41] assertion that organizational culture refers to broad ideologies, norms, and beliefs that shape corporate activities or behavior. The organizational actions [33]. The prerequisites for accomplishing organizational goals are not sufficiently provided by corporate decisions [34].

Networks, trust, and reciprocity that exist between employees and between firms make up social capital, an intangible asset of an organization [26, 35, 36]. According to [26], social capital is the bonds that bind a community's members together as well as the norms that govern the kind and number of social ties present in a given society. The success of *BUMDes* in *Klaten* Regency, Central Java Province, in creating a social model is manifested in information disclosure, such as the Director of *BUMDes* participating in obtaining information and knowledge in various fields and participating in organizational programs with colleagues and village communities.

Continuous performance is assessed as a unity between the social, economic, and environmental objectives of the company's activities that can increase the value of the company [8]. Companies try to achieve long-term benefits by carrying out sustainable actions that are considered the core of the company's strategy [37] (Cai, dan Li, 2018). *BUMDes* as a form of implementation of local economic drivers requires management by professional human resources so as to produce sustainable performance. *BUMDes* in *Klaten* Regency, Central Java Province, will have sustainable performance indicated

by economic sustainability, such as gaining profits in business activities and being able to expand market share. According to Johnson's opinion from 2017, sustainability is claimed to be attained and maintained through balancing the three facets of social, economic, and environmental growth. Organizations must include social, economic, and ecological development into their daily operations in order to achieve sustainable development [38].

## 5 Conclusion

All indicators tested are essential indicators as forming integrated quality management, innovation capability, organizational culture, social capital, and Sustainability Performances. The hands of human resources are dominant in developing quality management. The indicator of the prevailing corporate idea structuration forms the innovation capability. Indicator consistency chief creating organizational culture Indicators of disclosure of information dominant forming social capital. And the prevalent economic sustainability indicators include sustainable performance.

*BUMDes* in *Klaten* Regency, Central Java Province, will increase sustainable performance related to economic sustainability needs to pay attention to quality management focusing on the competence of human resources, paying attention to innovation capabilities such as structuring organizational ideas, creating corporate culture by creating consistency and utilizing social capital by means of information disclosure.

Acknowledgments. This study is the output of a dissertation, and the author honors the group of professors at the Universitas Brawijaya Malang's Faculty of Economics and Business for their promotion of the Doctor program.

# References

- 1. Kusuma, G. H. & Purnamasari, N., 2016. Baseline Research *BUMDes*: Kewirausahaan Sosial yang Berkelanjutan, Yogyakarta: Yayasan Penabulu,2016.
- Sayuti, H. M. Pelembagaan Badan Usaha Milik Desa (Bumds) Sebagai Penggerak Potensi Ekonomi Desa Dalam Upaya Pengentasan Kemiskinan Dikabupaten Donggal, *Jurnal* Academica Fisip Untad, 03(02), Pp. 717–728,2011
- Alfan Syukran dan Tauran. Dampak Kegiatan Badan Usaha Milik Desa (Bum Desa) Bagi Masyarakat Desa Bareng Kecamatan Sugihwaras Kabupaten Bojonegoro. Jurnal Administrasi Negara.2014.
- Atuna, R., & Harun, N. I. Peningkatan Kapasitas Badan Usaha Milik Desa dan Tantangan Pemerintah Sumalata Timur. Gorontalo Journal of Public Administration Studies, 2(2), 61– 77.2019. http://jurnal.unigo.ac.id/index.php/gjpads/article/view/769
- Ibrahim, Sutarna, I. T., Abdullah, I., Kamaluddin, & Mas'ad. Faktor Penghambat dan Pendukung Badan Usaha Milik Desa pada Kawasan Pertambangan Emas Di Sumbawa Barat. Sosiohumaniora, 21(3), 349–354,2019. https://doi.org/10.24198/sosiohuma niora.v21i3.23464

- Ramadana, C. B., Ribawanto, H., & Suwondo. Keberadaan Badan Usaha Milik Desa (*BUMDes*) Sebagai Penguatan Ekonomi Desa (Studi di Desa Landungsari, Kecamatan Dau, Kabupaten Malang). *Jurnal Administrasi Publik*, 1(6), pp 1068–1076, 2013,
- Thomas., V.B. Kenapa Ribuan *BUMDes* Mangkrak Meski Dana Desa Triliunan Rupiah? 16 Desember.2019,
- 8. Naciti, Valeria. Corporate Governance and board of directors: The effect of board composition on firm sustainability performance. Journal of Cleaner Production, 2019
- Rezania, D., Baker, R., & Nixon, A. Exploring project managers' accountability. International Journal of Managing Projects in Business, 12(4), 919–937,2019, https://doi.org/10.1108/ IJMPB-03-2018-0037
- Kantabutra S, Ketprapakorn N, Toward a theory of corporate sustainability: A theoretical integration and exploration, Journal of Cleaner Production, 2020, doi: https://doi.org/10.1016/ j.jclepro.2020.122292
- Wan Fauziah, W.Y., & Tan, S.K. Generation Differences in work Motivation: From Developing Country Perspective. *Journal of Economy, Management and Social Sciences* 2 (4), 97–103,2013
- Shafiq, M., Lasrado, F., Hafeez, K., The Effect of TQM on Organizational Performance: Empirical Evidence from the Textile Sector of a Developing Country Using SEM. *Manajemen* kualitas terpadu & Business. Excellence 1e22,2017
- Alserhan, Baker Ahmad. —On Islamic branding: brands as good deeds. *Journal of Islamic Marketing*. 1(2),2010 https://doi.org/10.1108/17590831011055842.
- Yusr, M.M., Mokhtar, S.S.M., Othman, A.R., Sulaiman, Y., Does interaction between TQM practices and knowledge management processes enhance innovation performance? Int. J. Qual. Reliab. Manag. 34, 955e974,2017
- Hi, K.B., TQM: a facilitator to enhance knowledge management? A structural analysis. Expert Syst. Appl. 41, 5167e5179,2014
- 16. Sila, I., 2007. Examining the effects of contextual factors on TQM and performance through the lens of organizational theories: an empirical study. J. Oper. Manag. 25, 83e109,2007.
- Abbas, J., Impact of total quality management on corporate green performance through the mediaMason role of corporate social responsibility. J. Clean. Prod. 242, 2019. https://doi.org/ 10.1016/j.jclepro.2019.118458, 118458.
- Maletic, M., Maletic, D., Dahlgaard, J.J., Dahlgaard-Park, S.M. and Gomišček, B. Sustainability exploration and sustainability exploitation: from a literature review towards a conceptual framework, *Journal of Cleaner Production*, Vol. 79 No. 2014, pp. 182-194,2014
- Dahlgaard-Park, S.M., and Dahlgaard, J. Organizational learnability and immovability a system for assessing, diagnosing and improving innovation excellence, *International Journal* of Quality and Service Sciences, Vol. 2 No. 2, pp. 153-174,2010
- 20. Saunila, M. Innovation capability for SME success: perspectives of financial and operational performance, *Journal of Advances in Management Research*, Vol. 11 No. 2, pp. 163-175,2014
- 21. Vicente, M., Abrantes, J.L. and Teixeira, M. Measuring innovation capability in exporting firms: the INNOVSCALE, *International Marketing Review*, Vol. 32 No. 1, pp. 29-51, 2015
- Sahoo, S.Quality management, innovation capability and firm performance: Empirical insights from Indian manufacturing SMEs," The TQM Journal, Vol. 31 No. 6, pp. 1003-1027,2019 https://doi.org/10.1108/TQM-04-2019-0092
- Denison, D.R., and Mishra, A.K. Toward a theory of organizational culture and effectiveness, Organization Science, Vol. 6 No. 2, pp. 204-23,1995
- Ji, Q., Zhang, H.Y., How much does financial development contribute to renewable energy growth and upgrading of energy structure in China? Energy Policy 128, 114e124,2019
- 25. Putra Surya, Anom, Badan Usaha Milik Desa: Spirit Usaha Kolektif Desa. Kementerian Desa, Pembangunan Daerah Tertinggal, Dan Transmigrasi Republik Indonesia, Jakarta,2015

- Fukuyama, F. Social Capital, Civil Society, and Development. *Third World Quarterly*, Vol. 22, No.1, h. 7–20,2001
- Shiri, M.M.,K. Mousavi, A. Pourreza, dan S. Ahmadi. The Effect of Intellectual Capital on Market Value Added. *Journal of Basic and Applied Scientific Research*. 2 (7): pp. 7214–7226, 2012
- 28. Lesser. Knowledge and Social Capital: Foundation and Application, Boston-Boutterwhorth-Heinneman, 2000
- 29. Cohen, S., L. Prusak, In Good Company: How Social Capital Makes Organization Work, London: *Harvard Business Press*,2001
- Claver, E., Lopez, D. M., Molina, J. F. and Tari, J.J. Environmental management and firm performance: A case. Journal of Environmental Management, Vol. 84, pp. 606–619,2007
- Laforet, S. (2011) A framework of organizational innovation and outcomes in SMEs, International Journal of Entrepreneurial Behaviour & Research, Vol. 17 No. 4, pp. 380-408,2011
- Pinho, J.C. Total Quality Management and performance in small medium enterprises: the mediating effect of customer orientation and innovation, International Journal of Quality & Reliability Management, Vol. 25 No. 3, pp. 256-275,2008
- Gurlek, Mert, and Muharrem Tuna. Reinforcing Competitive Advantage Through Green Organizational Culture and Green Innovation. *The Service Industries Journal*, 38(7), 467-491,2018
- Miner, B.J., D.P. Crane. 1995. Human Resource: The Strategic Perspective. New York: Harper Collin College Publishers. 1995
- 35. Nahapiet, J., dan Ghoshal, S., Social Capital, Intellectual Capital, and The Organizational Advantage. *Academy of Management Review*, 23(2), pp. 242–266,1998
- Putnam, Robert D, Education, Diversity, Social Cohesion and Social Capital. Meeting of OECD Education Ministers Raising the Quality of Learning for All 18 -19 March 2004/Dublin,2004
- 37. Cai, W., dan Li, G., 2018. The drivers of eco-innovation and its impact on performance: evidence from China. J. Clean. Prod. 176, 110e118.
- 38. Chou, S., Chen, C. W. & Lin, J. Y. (2015). Female online shoppers: examining the mediating roles of e-satisfaction and e-trust on e-loyalty development. *Internet Research*, 25 (4).2015
- Sri Handari Wahyuningsih, Achmad Sudiro, Eka Afnan Troena and Dodi W Irawanto. Analysis of Budaya Organisasiwith Denison's model approach for international business competitiveness. *Problems and Perspectives in Management*, 17(1), 142–151. doi:https://doi.org/10. 21511/ppm.17(1).2019.13,2019
- 40. Abeysekera, I.Intellectual Capital Disclosure Trends: Singapore And Sri Lanka. Journal Of Intellectual Capital, 9(4), 723–737.2008
- 41. Zeng, J., Phan, C.A. and Matsui, Y.The impact of hard and soft quality management on quality and innovation performance: an empirical study, *International Journal of Production Economics*, Vol. 162 No. 2015, pp. 216-226,2015
- 42. Bergman, B., Klefsjö, B. Quality from customer needs to customer satisfaction. 3rd edition. Lund: Studentlitteratur,2010
- 43. Reed, R., Lemak, D.J. and Mero, N.P. Manajemen kualitas terpadu and sustainable competitive advantage, *Journal of Quality Management*, Vol. 5 No. 1, pp. 5-26.2000
- Denison, D.R, Stephanie Haaland, Paulo Goelzer. Corporate Culture and Organizational Effectiveness: is Asia Different from The Rest of The World, Organizational Dynamic, Vol. 33, No. 1, pp.98-109,2004
- 45. Van Marrewijk, M., Concepts and definitions of CSR and corporate sustain2 ability: Between agency and communion. J. Bus. Ethics 44 (2), 95–105.2003
- Jamali, D., Insights into triple bottom line integration from a learning organization perspective. Bus. Process Manag. 12, 809e821,2006

- Jawad, Abbas. Impact of Manajemen kualitas terpadu on corporate sustainability through the mediating effect of knowledge management. *Journal of Cleaner Production*,224 (20),2019 https://doi.org/10.1016/j.jclepro.2019.118806
- 48. Todorut, A.V., Sustainable development of organizations through Manajemen kualitas terpadu. *Procedia Soc. Behav. Sci.* 62, 927e931.

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