

Journal of

Business and Strategic Management

(JBSM)

Influence of Organizational Innovation on the Performance
of Coffee Cooperatives in Kenya



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Influence of Organizational Innovation on the Performance of Coffee Cooperatives in Kenya

PhD Candidate: Peter Ngibuini Kuguru

ORCID number: <https://orcid.org/0000-0001-6479-7299>

Open University of Tanzania

Corresponding Author's email: peter@kuguru.com

Associate Professor: Prof. Jan-Erik Jaensson

Open University of Tanzania

Lecturer: Dr. Kinyanjui Nganga

University of Nairobi

Abstract

Purpose: The purpose of the study was to assess the influence of organizational innovation on the performance of coffee cooperatives in Kenya.

Methodology: A descriptive research design was applied. The target population of this study was 525 coffee cooperative societies in Kenya registered with the Commissioner for Cooperatives and licensed by AFFA (Coffee Directorate) as at 30th of October 2016. The sample size was 227 respondents. Structured questionnaires were used to collect primary data from the selected respondents.

Findings: The results revealed that organizational innovation and performance are positively and significantly related ($\beta=0.75$, $p=0.007$).

Unique Contributions to Theory, policy and practice: The study recommended firms to adopt new technologies for cultivation of organizational innovations. They need to be proactive in their research and development departments by incorporating technological advancements in order to maximize the potential that is in innovation strategies. Restructuring of the internal organization is necessary given a firm that requires efficiency and effective processes for better performance. The results of this study will contribute new knowledge which will provide the government and other stakeholders with better ways of managing co-operatives and improving their production.

Keywords: *Organizational Innovation, Performance, Coffee Cooperatives*

JEL Classification: L25, M1, O3

INTRODUCTION

Background of the Study

In order to succeed, coffee cooperatives must adapt to the ever-evolving needs of consumers, as stated by Birchall (2004). In the coffee industry and beyond, the cooperative sector has long been an integral part of every step of the agricultural value chain. This includes crop cultivation, postharvest handling, inventory management, sales and distribution, and even financing (Chambo, Mwangi and Oloo, 2008; Sualeh and Mekonnen, 2013; Mohammed and Lee, 2014; Chareonwongsak, 2017).

According to Baka (2013) and Josephine (2013), Kenya is home to over 924,000 farmers who are members of agricultural cooperatives. These cooperatives' primary purpose is to facilitate the transfer of agricultural technology in order to raise output and productivity in the sector, as well as to boost marketing and access to savings, credit, banking, and investment opportunities. Cooperatives play a vital role in assisting rural residents in enhancing small-scale agricultural production, marketing, and natural resource management for underprivileged groups by generating stable rural employment (Food and Agriculture Organization [FAO], 2011).

Despite this, many cooperatives around the world and in Kenya in particular are in a poor performance state of below 50% performance due to a number of factors such as poor attitude, lack of commitment by leadership, poor governance, a low capital base and corruption vice, insufficient knowledge and skill. This is evidenced by a reduced performance level, as shown by FAO (2011), Chege (2012), and Mohammed and Lee (2014). Private growers make up a minor percentage of Kenya's coffee industry, with most of the country's coffee coming from smallholder farms that have banded together to create cooperatives (Agriculture and Food Authority [AFA], 2017).

The goal of coffee cooperative organizations is to reduce overhead by minimizing waste and maximizing the coffee's long-term quality. This is being done so that the industry can remain competitive and in line with new rules on a national and international scale. A company that is serious about keeping up with the demands of the emerging markets should prioritize the long-term health of the company and the industries in which it operates while making decisions about the allocation of its resources in the short-term (Uphoff and Wijayaratra, 2000). To stay relevant in the face of domestic, regional, and international competition, manufacturers need to use cutting-edge production methods and cutting-edge manufacturing technologies (Manyara, 2003; Chambo et al., 2008).

Coffee cooperatives need to diversify in all areas for their growth, earnings, and revenues to be sustainable in the short and long term, especially given the importance of innovation and its direct connection to ability and output. Organizational innovations, which fall under the umbrella of Technological Innovation Capabilities (TICs), are seen as crucial from a Malaysian perspective because they allow businesses to learn new skills and become more competitive (Rahim and

Zainuddin, 2019). Despite the aforementioned movements, the Kenyan sector has continued to underperform in terms of both quality and quantity. The quantity of coffee produced in Kenya, for instance, is said to have decreased from 128,700 tons in 1987/1988 to 39,800 tons in 2013/2014 (Kenya National Statistics Bureau, 2020).

There is a wealth of empirical studies that have attempted to examine the connection between innovation in the workplace and the success of those businesses. But there aren't many that focus on coffee cooperatives, especially in a Kenyan environment. The research team of Adom, Boateng, and Gnankob (2019) examined the impact of UCC administration's innovative capabilities on the company's performance. The Kenyan coffee industry, however, received surprisingly little attention. The impact of technical innovation capabilities on company success in South Africa's media and entertainment business was the primary subject of Onwu's (2016) research. However, information about Kenyan coffee companies was scant. Therefore, the purpose of the present study was to fill in those gaps by examining the connection between organizational innovation and coffee cooperative success in Kenya.

LITERATURE REVIEW

The Dynamic Capability Theory

The theory of dynamic capacity (DC) arose as both an alternative about and a reaction against by the Resource or Assets-based View (RBV)'s inability to understand resource extraction and reconstruction, and capacities to meet quickly changing environments. DC has become a type of strategic advantage (Teece, 2018). Pisano (2015) established the principle and postulates that skills are the primary basis of competitiveness. Therefore, in any company resources are the basis of the capabilities. El Gizawi (2014) also noted that capacity building using available resources is important for organizations to be efficient. In comparison, Teece et al. (1997) advocated the use of the resources of companies to achieve desired outcomes. They argued that organizational learning and training are a part and parcel of an organization's entire strategy. Teece (2018) further clarified that learning new knowledge is key to improving performance.

Koch and Windsperger (2017) argue that competition derives from the strengths and abilities of the company that underlie and characterize the capacity of an organization to be creative. A company is called a planned asset heap and its ability to make efficient use of the assets (Teece, 2018). Industries are profitable both from measurable resources and from intangible capital. Corporate assets are those benefits associated with a business and include related individual, financial, technological, learning, physical, and money. The tool of a company gives a substantially more stable environment in which it builds up its growth activity and forms its business (Ellul and Yerramilli, 2013). The Dynamic Capability theory is related to our study since it brings out the concept of innovation in cooperative societies as the ability of the companies to evolve and advance in terms of having the ability to meet the quickly changing environments.

Empirical review

Successful pharmaceutical SMEs in Iran were studied by Dadfar et al. (2013), who analyzed the correlation between operational design capacity, application production of customer usage systems, and business outcomes. The results demonstrated that Iranian businesses had copied Western practices in user-usable technology and framework manufacturing. Statistical analysis indicated a probable causal relationship between innovation abilities, value proposition, framework, and user-usable output framework. Despite the fact that the research was supposed to take place in Kenya, the thesis referred to a location in Iran.

Strategic creativity and public university effectiveness in Kenya were the focus of a study by Shisia et al. (2014). Researchers clearly wanted to see if campus innovations had any bearing on the study's findings. A descriptive survey was used as the methodological framework for this study. The investigation revealed a robust relationship between universities' innovativeness and their overall success.

Introducing a novel method of administration inside the company's procedures, staff, or external interactions is an example of administrative creativity. Increases in semi-tradable capital and decreases in the cost of materials are two examples of how administrative improvements can boost business operations (Kneipp et al., 2019). In a dynamic and expanding business, the ability to coordinate resources in a way that maximizes responsiveness to institutional activities requires the development of protocols and practices that enable all levels of the enterprise to access the specific actions necessary to achieve the company's goals. Creativity has been viewed as a source of protective organizational might. Specifically, it means coordinating design efforts with business goals to benefit the organization, its clients, and other stakeholders. This is something that happens on purpose, in a planned way, and with the use of one or more models to determine if the innovation will be revolutionary or gradual (Schoemaker, 2018). Efforts to streamline procedures, routines, and foreign relations are examples of institutional innovations.

Research Gaps

A methodological gap can be identified from the research, for example, Shisia et al. (2014) studied the relationship between organizational innovation and performance of public universities in Kenya. Descriptive Survey Design was used. The population was the public universities in Kenya. The study found that innovation has a positive influence on the performance of public universities in Kenya. The study presents a methodological gap since it did not specify the number of universities targeted and who the respondents were. Likewise, the study presents little empirical generalization from universities to coffee firms.

A contextual gap can also be identified from the research, for instance, Dadfar et al. (2013) studied the relationship between organizational innovation capability, product platform development and performance in pharmaceutical SMEs in Iran. The study used a descriptive research design and focused on pharmaceutical small and medium enterprises (SMEs) in Iran. 200 questionnaires were

distributed in to the 8 companies. The study found a positive relationship between innovation capabilities, technology platform, product platform and performance. The study was focused on the context of (SMEs) in Iran thus, little evidence is provided with regard to coffee firms in Kenya.

METHODOLOGY

In this study, the descriptive research design was applied. The target population of this study was 525 coffee cooperative societies in Kenya registered with the Commissioner for Cooperatives and licensed by AFFA (Coffee Directorate) as at 30th of October 2016. The sample size was 227 respondents. Stratified random sampling was used to classify the coffee cooperatives into strata according to their regions in order to select the particular coffee cooperatives to be used in the research. Stratified random sampling was used in each stratum. This involved randomly selecting the coffee cooperatives from a given region (stratum) until the sampled size was attained. The study targeted the board chairpersons/ assistant chairpersons of each of the coffee cooperatives in Kenya. Structured questionnaires were used to collect primary data from the selected respondents.

Quantitative data was analyzed descriptively and inferentially. Descriptive data was analyzed through measures of central tendency including means, standard deviations, frequencies and percentages. Data was processed using the SPSS version 21.0. Regression analysis was done to establish the causal effects of the predictor variables on the dependent variable. It was also done to show the magnitude of the effect of independent variables on the dependent variable. The magnitude was measured by use of beta coefficients, F and t statistics which at 95% confidence interval (0.05 significance level), implying little room for chances of error. At 5%, there is little risk of error probabilities.

RESULTS

Descriptive statistics

The respondents were required to indicate whether they agree or disagree with the following statements relating to organizational innovation. The results are as shown below.

Table 1: Descriptive statistics on organizational innovations

Statement	1	2	3	4	5	Total	Mea	S. D
							n	
Organizational restructuring is important to achieving organizational innovations.	1%	4%	9%	72%	14%	100%	3.95	0.67
The organization has well-established links with the external players such as the suppliers and customers	1%	4%	7%	63%	25%	100%	4.07	0.76
The organization's routines and procedures are necessary for effective organizational innovation.	3%	0%	14%	42%	41%	100%	4.18	0.88
Organizational innovations lead to, improved workplace satisfaction	3%	0%	3%	49%	45%	100%	4.33	0.78
Decision making process is key to achieving organizational innovation	2%	0%	6%	52%	40%	100%	4.28	0.77
Average							4.16	0.77

The results in the Table 1 above revealed that 86.22% of the respondents agreed that organizational restructuring is important to achieving organizational innovations. The results also showed that 88.00% of the correspondents agreed that the organization has well-established links with the external players such as the suppliers and customers.

Additionally, 83.33% of the respondents agreed that the organization's routines and procedures are necessary for effective organizational innovation. Over ninety percent (93.78%) of the respondents agreed that organizational innovations lead to improved workplace satisfaction. Moreover, 92.00% of the respondents agreed that decision making process is key to achieving organizational innovation.

In conclusion, the average mean of the responses was 4.16 when viewed on a scale of five points. This means that the majority of the respondents agreed with the statements on organizational

innovations. In addition, the standard deviation of 0.77 implied that there was low variation in responses since the reported standard deviation was lower than 1. The findings agreed with those of Dadfar *et al.* (2013) who conducted a study on the relationship between organizational innovation capability, product platform development and performance in pharmaceutical SMEs in Iran. The study revealed that the pharmaceutical firms in Iran have adopted organization innovation capabilities as shown by high mean scores reported in their study.

Regression Analysis.

Bivariate/simple regression analysis was conducted so as to establish the influence of Organizational innovation on the performance. The resultant beta coefficient and level of significance were used to evaluate the hypothesis associated with Organizational innovation

Table 2: Model of Fitness for Organizational Innovation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.590a	0.348	0.345	0.5139

a Predictors: (Constant), Organizational innovation

	Sum of Squares	df	Mean Square	F	Sig.
Regression	31.314	1	31.314	118.581	.000b
Residual	58.624	222	0.264		
Total	89.938	223			

a Dependent Variable: Performance

b Predictors: (Constant), Organizational innovation

	β	Std. Error	Beta	t	Sig.
(Constant)	1.047	0.289		3.616	0.00
Organization Innovation	0.750	0.069	0.59	10.889	0.007

Table 2 above, shows the results presenting the fitness model of regression which is used in explaining the study phenomena. Organizational innovation is found to be satisfactory in the firm's performance. This is also supported by the coefficient of determination, R square of 0.348. This is evident that, organizational innovation explains 34.8% of the firm performance. The model above is therefore useful in linking the relationship.

The findings also agreed with those of Dadfar *et al.* (2013) who examined the relationship between organizational innovation capability, product platform development and performance in pharmaceutical SMEs in Iran. The findings revealed that the Iranian firms have chosen an imitative strategy in technology and product development. The empirical analysis showed a positive relationship between innovation capabilities, technology platform, product platform and performance. The study was conducted in Iran while the proposed study was conducted in Kenya.

Table 2 above provided the results in the analysis of variance (ANOVA). The results revealed that the model was statistically significant and that organizational innovation was a good predictor of the firm's performance. This was supported by the F statistic of 118.581 and the reported p-value (0.000) which was less than the conventional probability of 0.05 significance level. Where, $F_{\text{statistic}} = 118.581 > F_{\text{critical}} = 3.89 (1,222)$.

The Table 2 represents the regression of coefficients results which revealed that organizational innovation and performance are positively and significantly related ($\beta=0.75$, $p=0.007$). This implies that improvement in 1 unit of the aspects related to organizational innovation leads to an improvement in the performance by 0.75 units.

Hypothesis Testing for Organizational Innovation

Table 2 results were used in testing the hypothesis by using multiple linear regressions. The null hypothesis was that there is no relationship between organization innovation and coffee cooperatives performance and alternative hypothesis was that there is a relationship between organization innovation and coffee cooperatives performance. Table 2 show that the p-value was $0.000 < 0.05$. Therefore, the alternative hypothesis was accepted and it was concluded that there is a relationship between organization innovation and performance of coffee cooperatives in Kenya.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Since the study infers those innovations related to the organization are factors that lead to improvement of performance, it was concluded that organizational restructuring right from the board through the organizational structure to the low-level workers is vital. This further led to the conclusion that cooperatives in Kenya just like any other profit-oriented organization acknowledge the innovativeness of the board members as well as the leaders of the organization. This is vital since; the managers will come up with new strategies and formulas to achieve the set objectives. Their proactive drive towards the goal will motivate the entire employees towards the same. The leaders and role models in the company are likewise a big boost towards innovative culture internally, by encouraging the employees to be positive.

The study likewise concludes that the implementation of a new organizational techniques and strategies towards improved firm performance have helped the cooperative societies in Kenya to manage their administrative expenditures. They have maximized on the available resources within

the organization such as utilizing on expert staff in various departments, quality production techniques and technologies. This has immensely reduced the cost of operation which has boosted the firms' profits in the long run. The study also noted that not only will the motivation encourage internal innovation, but also the pathway taken through the use of incentives and remuneration mechanism. This is in conjunction with the dynamic capability view that states that the human capital in an organizational setting is a resourceful asset to its performance. Thus, amidst the restructuring and re-engineering process, the organization needs to identify the strengths and seek to develop them for more productivity. The weaknesses of the employees need to be strengthened too rather than cutting off the employee.

Recommendations

Coffee firms, thus, should adopt new technologies for cultivation of organizational capabilities. They need to be proactive in their research and development departments by incorporating technological advancements in order to maximize the potential that is in innovation strategies. Restructuring of the internal organization is necessary given a firm that requires efficiency and effective processes for better performance. In addition, the study recommends adoption of technology for the development of new services, new functions, and formation of new alliances. The study further recommends an organization to employ and develop a high technology for its product goes a long in order to determine strategic position to adopt the differentiation position or the cost leadership position.

REFERENCES

- Adom, A.Y., Boateng, L. & Gnankob, R.I., 2021, 'Corrigendum: Critical analysis of the role of innovative capabilities on firm performance: Evidence from the University of Cape Coast administration in Ghana', *Africa's Public Service Delivery and Performance Review* 9(1), a580. <https://doi.org/10.4102/apsdpr.v9i1.580>
- AFA, (2017). Coffee Directorate, North Rift Region Annual Reports: *Ksi/AR/Vol.1/17*. 35-76.
- Baka,L. O. (2013). The Challenges Facing Co-operative Societies in Kenya a Case Study: Kenya Planter Co-operative Union (KPCU). *Public Policy and Administration Research*, 3(11), 32-44. <http://www.iiste.org/journals/>
- Birchall, J. (2004). Cooperatives and the Millennium Development Goals, Competitiveness through People -The Case of Croatia. Zagreb, Geneva: ILO.
- Chambo, S. A., Mwangi, M., & Oloo, O. (2008). An Analysis of the Socio-Economic Impact of Co-operatives in Africa and their Institutional Context, Nairobi. International Cooperative Alliance and the Canadian Cooperative Association.

- Chareonwongsak, K. (2017). Enhancing board motivation for competitive performance of Thailand's co-operatives. *Journal of Co-operative Organization and Management*, 5 (2017), 1-13. <https://doi.org/10.1016/j.jcom.2017.01.001>
- Chege, J. (2012). Value addition in Coffee Industry in Kenya: Lessons from Cut Flower Sector Kenya. Institute for public Policy Research and Policy Analysis (KIPRRA), Nairobi: Kenya ICBE-RF Research Report No. 21/12. www.trustafrica.org/icbe
- Dadfar, H., Dahlgaard, J. J., Brege, S., and Alamirhoor, A. (2013). Linkage between organizational innovation capability, product platform development and performance: The case of pharmaceutical small and medium enterprises in Iran. *Total Quality Management & Business Excellence*, 24(7-8), 819-834. <https://doi.org/10.1080/14783363.2013.791102>
- El Gizawi, N. (2014). The dynamic capabilities theory: assessment and evaluation as a contributing theory for supply chain management (Bachelor's thesis, University of Twente). <https://purl.utwente.nl/essays/65301>
- Ellul, A., & Yerramilli, V. (2013). Stronger risk controls, lower risk: Evidence from US bank holding companies. *The Journal of Finance*, 68(5), 1757-1803. <https://doi.org/10.1111/jofi.12057>
- Food and Agriculture Organization (FAO, 2011). Agricultural Cooperatives are Key to reduce hunger and poverty. Rome, Italy. Accessed December 2016.
- Josephine, P. C. (2015). Contributions of Savings and Credit Cooperative Society on Improving Rural Livelihood in Makungu ward Iringa, Tanzania. Proceedings of the Second European Academic Research Conference on Global Business, Economics, Finance and Banking, Zurich-Switzerland, (1-14).
- Kenya National Statistics Bureau. (2020). Economic Survey 2020. <https://s3-eu-west-1.amazonaws.com/s3.sourceafrica.net/documents/119905/KNBS-Economic-Survey-2020.pdf>
- Koch, T., & Windsperger, J. (2017). Seeing through the network: Competitive advantage in the digital economy. *Journal of Organization Design*, 6(1), 1-30. <https://doi.org/10.1186/s41469-017-0016-z>
- Manyara, M. K. (2003). The Development of Co-operative Law and Policy in Kenya, Nairobi.
- Mohammed, N., & Lee, W. B. (2014). Role of Cooperatives in Rural Development, The Case of South Nations Nationalities and People Region, Ethiopia; *Developing Country Studies*, 4 (19), 32-39. <https://doi:10.11648/j.sjbm.20150304.12>
- Onwu, E. G. (2016). The effect of technological innovation capabilities on corporate entrepreneurship and firm performance in the South African media and entertainment industry (Doctoral dissertation).

- Pisano, Gary, A Normative Theory of Dynamic Capabilities: Connecting Strategy, Know-How, and Competition (September 29, 2015). Harvard Business School Technology & Operations Mgt. Unit Working Paper No. 16-036, <http://dx.doi.org/10.2139/ssrn.2667018>
- Rahim, F. B. T., & Zainuddin, Y. B. (2019, January). The impact of technological innovation capabilities on competitive advantage and firm performance in the automotive industry in Malaysia. In AIP Conference Proceedings (Vol. 2059, No. 1, p. 020030). *AIP Publishing*.
- Schoemaker, P. J., Heaton, S., & Teece, D. (2018). Innovation, dynamic capabilities, and leadership. *California Management Review*, 61(1), 15-42.
- Shisia, A., Sang, W., Matoke, J., and Omwario, B. N. (2014). Strategic Innovation and Performance of Public Universities in Kenya. *European Journal of Business and Management*, Vol.6, No.23.
- Sualeh, A., & Mekonnen, N. (2013). Evaluation of Coffee Quality of Tigray Regional State, Ethiopia (Case study Raya Azebo District): *Prudence Journal of Agricultural Research*, 1(2), 3-6.
- Teece, D. J., Pisano, G. and Shuen, (2018). Dynamic Capabilities and Strategic Management.
- Uphoff, N., & Wijayarathna, C. M. (2000). Demonstrated benefits from social capital: the productivity of farmer organizations in Gal Oya, Sri Lanka. *World development*, 28(11), 1875-1890. [https://doi.org/10.1016/S0305-750X\(00\)00063-2](https://doi.org/10.1016/S0305-750X(00)00063-2)