

THE SIGNIFICANT OF TECHNICAL COMPETENCIES ON OPERATIONAL PERFORMANCE OF CO-OPERATIVE ENTERPRISE MEMBERS IN SOUTH AFRICA

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Abstract

Co-operative enterprises are regarded as a vehicle to fight poverty, create employment and boost economic growth in South Africa. Large number of co-operatives in the country were created through initiatives of government agencies. However, they have (for a long time) been experiencing operational performance difficulties. This includes specific competencies that require specialised knowledge for performing physical and practical tasks. This sentiment underpins the importance of technical competency in the various business sectors. Hence, this study examines the influence of technical competencies on the operational performance of co-operatives. It was quantitative in design. The primary data were collected from 136 co-operative members based in uThukela Municipality, KwaZulu-Natal (in South Africa), using a structured questionnaire. Data was analysed using descriptive and one-sample statistics. The results indicate that technical competencies for both employees and co-operative members influence the operational performance of the co-operative enterprises in South Africa. However, training programmes are not accessible by the co-operatives. The original contribution of this paper is its value in uncovering the strengths and weaknesses of technical competencies on co-operatives in South Africa.

Keywords: co-operative, technical competencies, operational performance, uThukela Municipality

INTRODUCTION

Co-operatives are an established forms of businesses in South Africa, dating back to the end of the 18th century (Vellem, 2013). Promotion of co-operative enterprises in SA is a one of the key programmes of the National Government's Broad Based Black Economic Empowerment (BBBEE) strategy that seeks to address the imbalances of the past (DTI, 2012).

According to Doyle (2017), co-operatives are seen as having the ability to close the gap between the alleged first and second economies in South African society, with the aim of creating employment and reducing poverty and inequality. There are numerous pronouncements made by the South African government that emphasise the significance of cooperatives in the South African economy. They act as the vehicle to empower needy people, especially in the rural areas. The South African government has acknowledged that cooperatives have an advantage over other types of enterprises, hence the focus on their development (DTI, 2012). Thus the government has made a commitment to promote cooperatives over ten years (2012 to 2022) in order to unleash their potential to create and develop





income-generating activities, as well as decent and sustainable employment. However, a DTI baseline study (2009) indicates a low survival rate of co-operatives.

Operational performance is one of the crucial components of the overall performance of cooperatives (Shu, 2011). Salem (2003) concurs that operational performance is the pillar of any organisational performance. Hwang et al. (2014) outline that evaluating appropriate performance provides a key role for an organisation's success. According to the DTI (2012) many co-operatives are initiated by unemployed people, often with low skills level and no prior business experience, in economically marginal areas. According to Makaringe (2016), the lack of technical competencies amongst co-operatives undermines the chances of their success. Technical competencies refers to the ability to apply specialised knowledge or knowledge (Robbins, Judge, Odendaal & Roodt, 2009). Hence, this study evaluates the influence of technical competencies of co-operative members for the improvement of operations performance. Limited technical competencies result in poor quality services and products and the inability to compete favourably in the market (Kimetto, 2017). Harris, Stephanson and Fulton (1996) posit that the success of a co-operative is determined by members' knowledge of their co-operative and their technical competencies. Hence, this study evaluates the influence of technical competencies on the operational performance of co-operatives in South Africa. It is guided by the following research questions (RQs):

- RQ1: Do technical competencies influence the operational performance of co-operatives in South Africa?
- RQ2: Do co-operative employees possess technical competencies relevant to their tasks aim at improving operational performances of the co-operatives in South Africa?

A substantial amount of South African government resources has been spent on the promotion of co-operatives in the past 15 years at the three spheres of government (Naidoo & Urban, 2012). The aim is to enhance economic development, job creation and reduce poverty. However, there is little evidence of their survival and employment creation (Amene, 2017). The South African co-operatives have seen a failure rate of approximately 88 per cent each year (NCOP, 2010). The baseline study commissioned by the DTI (2012) highlights that only 2 644 of 22 030 co-operatives could be verified to be in operation, representing a mere 12 per cent survival rate of co-operatives in South Africa. Consequently, this study assesses the influence of technical competency on the performance of co-operatives in South Africa.

The rest of the study discusses the literature review, methodology, study results, discussion, the implications of results for policy and practice, study limitations, as well as the conclusion.

LITERATURE REVIEW

This section presents the overview and the significance of technical competencies on cooperatives. Training and technical competencies for co-operative development, as well as the technical knowledge for co-operatives, concludes the theoretical framework for the study.





Overview of technical competencies of co-operatives

Technical competencies are job specific competencies that every employee in a given role needs to possess (Johansson, 2016). They include competencies for using a specific machine, software system or process. According to Makaringe (2016), the lack of technical competencies amongst co-operatives undermines the chances of their success and contributes to tensions between co-operative members. Kimetto (2017) adds that inadequate technical competencies result in poor products and services, and cannot compete positively with competitors. Harris, Stephanson and Fulton (1996) posit that the success of any co-operative is driven by employees' technical competencies.

The majority of authors (Hellriegel et al, 2012; Cronje and Smit, 1997; Robbins and De Cenzo, 1998) outline technical competencies as the ability to use the tools, procedures and techniques of a special field. According to Barreira (2005), an organisation's technical and industry competencies are an important form of expert power that facilitate the implementation of the organisation's vision and strategy. Moreover, industry-specific competencies and relevant technical competencies directly affect performance. Doyle (2017) defines technical competencies as the abilities and understanding needed to perform specific tasks. Furthermore, numerous industries require employees with experience of technical competencies. Many technical competencies require education and experience to master. They are the type of hard competencies that can be learned, defined, evaluated and measured. The five categories identified by Hirschowitz et al. (1989), as cited by Perks and Struwing (2005), present categories of technical competencies. They include product knowledge (what a particular product could do and what it could be used for); process knowledge (how to manufacture the relevant product and the steps that need to be taken into account). In addition, it includes knowledge of the market and the potential customer who may use the product or service; knowledge of the service being offered and how to perform the tasks necessary to render the service; as well as the knowledge of methods of communication to inform customers of the product or service.

Training and technical competencies of co-operative members for enterprise development

Education and competencies development are critical for SMMEs and co-operatives, for their growth as well as to move up the value chain (King and McGrath , 1999). Corna, Lal and Colombo (2014) agree that education, training and experience are key elements in successful enterprise creation development. Mazibuko and Satgar (2009) add that co-operatives need training for their key activities and for improving business capabilities. Nieman (2001) further asserts that technical competencies training addresses the ability to use the knowledge and techniques of a particular discipline, thus attaining certain ends. This is confirmed by Rwekaza and Anania (2018), who emphasise that co-operative education and training is critical in ensuring better performance and sustainability.

Most members of co-operatives have no awareness of the conceptual, technical and managerial competencies required to manage their enterprises (Amene, 2017). For the management of co-





operatives to have a meaningful role of managing their enterprises, they should be well equipped with technical and management competencies. However, Soufani and Ibrahim (2002) argue that it is not only essential for SMMEs and co-operatives to develop competencies in all management functional areas, but critical that they develop the technical functional areas of operations. Hence, this study assesses members' perceptions on the influence of technical competencies of co-operatives on operational performance.

According to Fraizer and Gaither (1999), operations are often ignored, even though they are the backbone of many organisations. Moreover, technical and industry-specific competencies are also ignored in SMME and co-operative settings, even though these are crucial due to their direct effect on sustainability. Barreira (2005) states that technical and industry-specific competencies should receive more attention in co-operative formation because of the domain they reflect. Industry competencies are an important form of specific competencies that have a highly significant direct effect on venture creation. Thus, an entrepreneur's technical and industry competencies are an important form of expert power that facilitates the implementation of the entrepreneur's vision and strategy. Baum et al. (2001) postulate that industry specific and relevant technical competencies directly affect performance. They serve as a source of competitive advantage that rivals find difficult to identify and imitate. According to Perks and Struwing (2005), technical competencies are requisite for a start-up. However, business operations competencies are often acquired only through experimental learning.

The most effective talent retention tools identified by best performing co-operatives are opportunities for career development, specific events to foster affiliation and one-on-one leadership conversations with talented employees (Amene, 2017). In order to meet the projected gaps, co-operatives develop and implement training programmes across the enterprise aimed at achieving clearly defined competencies. They foster internal mobility and career opportunities, ensuring that their organisations have the people it needs at all levels in order to win long-term operational objectives. Betru (2010) argues that education links with all the operational performance indicators of co-operatives to efficiency is realised. In addition, better governance, internal control mechanics and service delivery are also feasible with the better education of members. Miner and Guillotte (2014) assert that co-operatives, like any other organisation, need to embrace continuous performance improvement, which can be achieved through education and training. Hence, the next subsection discusses the influence of technical knowledge of co-operative members.

Technical knowledge of co-operative members

As competition in the global market intensifies and the pace of technological change increases, businesses increasingly form co-operative ventures in order to sustain and enhance their competitiveness (Lam, 1997). Hergert and Morris (1988) assert that global co-operative ventures are difficult to manage, prone to uncertainty and their failure rate is high. The potential difficulties facing co-operative enterprises are even greater in collaborative ventures involving technology transfer and knowledge sharing, such as joint product development, as well as research and development (Lam, 1997).





Pezeshki-Raad and Kianmehr (2001) indicate that co-operatives in rural production in Sabzever, (in Iran) significantly improved their technical knowledge. In addition, Mohammadi and Alashrafi (2006) add that members of co-operatives in Qom Province (in Iran), Iran relished an adequate level of technical knowledge and had higher technical efficiency. However, Shahroudi et al. (2007) report that the most affecting variables on improving the technical efficiency of Saffron producers were practical competencies, education levels and technical knowledge. Saaiehmiri et al. (2008) concur that capacity building has an effect on improving the technical knowledge of the members of co-operatives.

According to Co-operatives (2012), it is important for the employees of a co-operative to have acceptable competencies of productive processes relevant to the field of their work. Moreover, it is especially important to emphasise this in strengthening the capacities of female co-operative members, especially in situations where women's access to education and information may be limited. It ensures that women's co-operatives have equal and adequate access to extension services and, thus, the relevant productive and communication technologies is vital. Roodt (2005) emphasises that thorough technical knowledge of a product or service is required for a successful organisation.

In order to determine the type of operations' knowledge and competencies that co-operatives need, there is no better approach than the examination of the decisions that are typically made in a production operations environment (Naidoo & Urban , 2012). Strategic decisions that are concerned with long-term plans include deciding whether to launch a new product development project; deciding on the design for the production process for a new product; deciding on how to allocate new material, utilities, production capacity and other resources; as well as deciding what new businesses are required and where to allocate them.

Furthermore, Naidoo and Urban (2012) suggest that the operating decisions normally pertain to issues relating to planning production to meet customer demand. The main key responsibilities of operations is to take the orders for products and deliver the finished products to the customer. The decisions are made in terms of how much finished goods inventory to carry for each product; how much of each to include in the next month's production schedule; whether to increase production capacity for the next month through overtime and subcontracting; as well as deciding the details of the raw material purchase plan to support next month's production schedule.

ILO (2008) emphasises that access to training is a major constraint on the opportunities for rural people in developing countries. Nearly 90 per cent of agricultural workers employed by co-operatives in India have no formal training. The study amongst small-scale co-operatives in Kenya indicates that over 85 per cent of those working in the rural informal economy have no technical training at all. Many young people from rural areas are deprived of the chance of entering urban labour markets because of their low levels of education and lack of appropriate competencies experience (Johannson, 2016). Hence, this study investigates the influence of technical competencies on operational performance in South Africa.





METHODOLOGY

The methodology for this research will be discussed under the following headings, namely: the target population, the municipalities under which co-operatives that participated in the study were operating, sample size, data collection, as well as the measurement and analysis.

Target population

The target population refers to all the participants who meet the particular criteria specified for a research investigation (Alvi, 2016). The target population in this study constituted 250 cooperative enterprises within uThukela Municipality (DTI, 2012). For this study, each cooperative was represented by one member.

The municipalities under which co-operatives were located

The study was conducted in the uThukela Municipality, in the KwaZulu-Natal Province (in South Africa). The uThukela Municipality is one of the ten municipalities in the province. The following Table 1 presents the spread of co-operatives in different local municipalities of the district.

Table 1: Co-Operatives in Different Municipalities of the Uthukela Municipality

No	Local Municipality	Number of co- operatives	Percentage of the total	
1.	Alfred Duma Local Municipality	115	46	
2.	Inkosi Langalibalele Local Municipality	87	35	
3.	Okhahlamba Local Municipality	48	19	
Total		250	100	

Source: Author's own analysis

Table 1 shows that Alfred Duma Local Municipality had more (at 46 per cent) of the cooperatives, whilst Okhahlamba Local Municipality had the least number of co-operatives at 19 per cent.

Sample size

From a total of 250 co-operatives, 145 were randomly selected for participation. However, 136 co-operatives participated. Recruitment of co-operatives was undertaken with the aim of ensuring a representative spread of co-operatives in various local municipalities of the district.

Data collection

A self-administered questionnaire was used in this study. According to Godwill (2015), selfadministered questionnaires are useful for collecting data from a large number of participants, particularly when respondents are dispersed over a wide geographic area. The distribution and retrieval of questionnaires was done from 145 randomly selected co-operatives. However, a total of 136 questionnaires were retrieved through hand collection and emails from members of co-operatives. A total of 136 questionnaires were returned, representing a 94 per cent response rate, considered high compared with the norm for survey responses (Baruch and





Holtom, 2008). The main reason for this high response rate was due to the invitation letter sent to the co-operatives within the uThukela Municipality.

Measurement and analysis

In line with research framework, the study measured six variables using the questionnaire. It employed a Likert scale, ranging from 1 (strongly agree) to 5 (strongly disagree). The variables (Doyle, 2017; DTI, 2012; Johansson, 2016; Sapovadia, 2012; Satgar, 2009; Twalo, 2012) include: employees have competencies relevant to their field of work; employees possess technical competencies relevant to the enterprise's production process; training programmes are accessible to co-operative member's activities; technical competencies influence the operational performance of the co-operative; technical competencies contribute to the awareness of operational processes in the co-operative; and technical competencies contribute to the operational success of a co-operative.

The Statistical Package for the Social Sciences (SPSS) version 23.0 was used to do the data analysis. Both the descriptive and one-sample tests were used to analyse the study objectives.

STUDY RESULTS

Descriptive analysis for technical competencies as a driver for co-operative performance

The following Table 2 presents percentage responses regarding the influence of technical competencies on the operational performance of co-operatives.

Table 2: influence of technical competencies on the operational performance of cooperatives

Technical competencies on operational performance	Percentage response accepting influence of technical competencies on operational performance		
Employees have competencies relevant to their field of work	85.9		
Employees possess technical competencies relevant to the	90.4		
enterprise's production process			
Training programmes are accessible to the co-operative	37.0		
member's activities			
Technical competencies influence the operational	94.8		
performance of the co-operative			
Technical competencies contribute to the awareness of	65.9		
operational processes of the co-operative			
Technical competencies contribute to the operational success	95.6		
of a co-operative			

Source: Author's own analysis

The co-operative members strongly agreed (on five of the six variables) that technical competency influences the operational performance of co-operatives in South Africa. Critical factors as presented in Table 2 include: employees have competencies relevant to their field of





work at 85.9 per cent; employees possess technical competencies relevant to the enterprise's production process at 94.8 per cent; technical competencies contribute to the awareness of operational processes of the co-operative at 65.9 per cent; and technical competencies contribute to the operational success of a co-operative at 95.6 per cent. These factors have bigger percentages above 50 per cent. The results are supported by Twalo (2012) who indicated that technical competencies are fertile ground for poor operational performance of co-operatives. Sapovadio (2012) emphasised that technical knowledge in co-operatives increases the chances of being successful.

One-sample tests for technical competencies as a driver for co-operative performance

The one-sample tests were used to test the differences or agreements between genders thus determining whether there are enough evidence to reject the null hypothesis. According to Welman, Kruger and Mitchel (2011), one-sample tests determine whether a population mean is significantly different from the hypothesised value. The following Table 3 presents technical competencies test results for technical competencies on operations performance for the co-operatives.

Technical competencies for operational performance						95% Confidence Interval of the Difference	
		t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
•	Technical competencies influence the operational performance of the co-operative	-26.614	134	.000	-1.504	-1.62	-1.39
•	Training programmes are accessible to co-operative activities	-1.094	134	.276	104	29	.08
•	Employees have competencies relevant to their field of work	-15.954	134	.000	-1.052	-1.18	92
•	Employees possess technical competencies relevant to the enterprise's production processes	-19.252	135	.000	-1.140	-1.26	-1.02
•	Technical competencies contribute to the awareness of operational processes of the co-operative	-7.920	134	.000	748	93	56
•	Technical competencies contribute to the operational success of a co- operative	-28.991	134	.000	-1.593	-1.70	-1.48

Table 3: technical competencies results on co-operative operations performance

Source: Author's own analysis

(a) The results in Table 3 show that there are statistical significant agreement between different genders of the co-operatives on the influence of technical competencies and co-operatives' operational performance. These include:





- technical competencies influence the operational performance of the co-operative at p-value of 0.000 [t(134) = -26.614, p<0.05],
- employees have competencies relevant to their field of work at p-value of 0.000 [t(134) = -15.954, p<0.05],
- employees possess technical competencies relevant to the enterprise's production process at p-value of 0.000 [t(135) = 19.252, p<0.05],
- technical competencies contribute to the awareness of operational processes in the cooperative at p-value of 0.000 [t(134) = - 7.920, p<0.05], and
- Technical competencies contribute to the operational success of a co-operative at p-value of 0.000 [t(134) = 28.991, p<0.05].

The above analysis shows p-values below the critical value of 0.05 level at the 5 per cent level of significance. The results indicate that technical competencies influence operational performance of co-operatives in South Africa. According to Fraizer and Gaither (1999), technical and industry-specific competencies are ignored in co-operative settings even though they are crucial on their direct effect on performance and sustainability. Barreira (2005) indicates that technical and industry-specific competencies should receive more attention in co-operative formation because of the domain they reflect.

(b) However, Table 3 illustrates that there is no statistical significant agreements that training programmes are accessible to co-operative at p-value of 0.276 [t (134) = - 1.094, p>0.05]. This indicates that co-operative members do not access training programmes aimed at improving co-operative performance.

DISCUSSION

The study investigates the influence of technical competencies on operational performance in the co-operative enterprises in South Africa. It examined the production and related experiences of the co-operative members on the influence of technical competencies on cooperatives. Descriptive and one-sample tests were used to analyse data. The study indicates technical competencies for both employees and co-operative members influence the operational performance of co-operative enterprises in South Africa. This is supported by the South African Department of Agriculture, Fisheries and Forestry (2012) which reports that a lack of competencies has serious constraints for agricultural co-operatives. The co-operative members have poor technological competencies, which is a serious obstacle in accessing useful formal institutions that disseminate technological knowledge. In addition, Twalo (2012) indicates that a lack of technical competencies is a fertile ground for poor operational performance of co-operatives. AgriSETA (2015) also confirmed that many challenges exist in the South African land reform processes. One of them relates to the lack of capacity amongst beneficiaries. Failure is attributed to a lack of technical expertise and inadequate support in the training and development of beneficiaries, most of whom have formed co-operative enterprises.





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Implications of Results for Policy and Practice

The South African Small Business Development Department and its DTI should revise cooperative enterprise development strategies, policies and practices that help to achieve cooperative business goals (Twalo, 2012). This must be based on an understanding of the economic factors relating to technical competencies of co-operative members for the improvement in operational performance in South Africa (Johannson, 2016). Besides the achievement of study objectives, the following conclusions can be made:

- 1. Illiteracy remains the stumbling block towards understanding proper operational procedures (Vellem, 2013)
- 2. Lack of competencies is identified as one of the reasons co-operative enterprises have not been able to operate in the formal economy (Twalo, 2012)
- 3. One way of addressing competencies deficiency in co-operatives will be the introduction of minimum education requirements for co-operative membership (Twalo, 2012).

Study limitations

The study was limited to the co-operative enterprises located within the uThukela Municipality. It was conducted in the three local municipalities of the uThukela Municipality. As there are more than 8 073 co-operative enterprises in South Africa (DTI, 2012), the results cannot be extrapolated to other co-operative enterprises.

CONCLUSION

The majority of co-operatives in South Africa were started by unemployed individuals, often with no competencies and business experience (DTI, 2012). Hence, the need for co-operative members with specialist technical knowledge. The lack of technical competencies within co-operative members and employees weakens the chances of co-operative enterprise success. Vellem (2013) adds that poor levels of education and technical training are the main reason for the failure of many co-operatives in South Africa. Hence, Kanyane (2011) believes that the South African government should train co-operatives in their geographical and sectoral locations prior to material support.

Future research required

During the course of this study, issues relating to the long-term survival of co-operative enterprises resulting from training and development intervention on co-operative members were not covered. This includes the influence of technical competencies in other provinces of South Africa. It is recommended that future research should examine the impact of technical training intervention, through both quantitative and qualitative design, in depth.

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