Education Programmes for Manufacturing Cooperatives:
United Kingdom and South Africa Study

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Abstract

Cooperatives are community-based enterprises which are collectively owned by members and skills are key resources to their success. A cooperative is defined as an autonomous enterprise run on democratic principles for the mutual benefit of its members. In South Africa and the United Kingdom cooperatives play a key role in creating access to products and services in local communities. The rate of success among UK cooperatives is higher than that of South Africa. The investment in the training of cooperatives by CoopsUK is amongst the reasons that the UK cooperative movement has been successful. The efforts of the South African government and the Department of Trade and Industry to train cooperatives did not yield the required results instead there has been a continuous rise in the number of cooperatives that have ceased to exist. This study uses a desk review approach to understand the themes in training of manufacturing and operationally fit cooperatives. The results show that financial management, resource allocations, cost management, efficiency and production management are critical areas of training. The lack of a strong cooperative movement to support manufacturing cooperatives in South Africa is a problem and directions for future research are provided on the last section of this paper.

Keywords
Manufacturing, Cooperatives, Training and Education

1. Introduction

Provision of education for adults is at a very low rate globally. Adult literacy and skills advancement programmes are provided by schools and community colleges. The cooperative sector has gained interest from many people in the adult category and who were not adequately skilled to run businesses (Cachioni et al., 2014). Members of a cooperative need business, finance and technical management skills to increase the chances of success for their cooperative. In cooperatives these skills are needed to address the problems causing failure in these enterprises. The problems are poor business planning, lack of training, poor market linkages and poor application of cooperative governance (Wessels and Nel, 2016). The performance of cooperatives depends on their ability to use intellectual capital to be progressive organisations and to cope with technical aspects of production management in competitive sectors (Khan et al., 2016). Advisory and consultancy services for the education of cooperatives and other small enterprise owners are not sufficient on their own. A holistic approach to continuous education and learning for small business owners and social enterprises such as cooperatives is important in address the inadequate skills among small business entrepreneurs (Kalmi, 2013). Cooperatives are founded and established on the principles of social welfare and democratic fairness for their members they are regarded as an equitable system of redistributing wealth.
It is for this reason and others that the success of cooperatives through educational and training support programmes needs to be realized (CHRISTOFOROU, 2010).

1.1 Understanding the Manufacturing Sector of the UK and South Africa
South Africa and the United Kingdom are not high ranking manufacturing countries. China and other east-Asian countries rank high as manufacturing countries. In South Africa and also in the United Kingdom there has been intensified campaign for locally produced food, clothing and basic products. In South Africa the campaign has been known as Proudly South African and in the United Kingdom as made in Britain. Cooperatives play a role in production of art, clothing and food in both the countries. In South Africa agricultural enterprises are organised as cooperatives and in the United Kingdom cooperatives compete in strategic manufacturing sectors, and also in retail. In the United Kingdom cooperatives are also involved in the energy sector where they facilitate sustainable power supply on the basis of mutual benefit and environmental protection (Tham and Muneer, 2013).

1.2 Background to Cooperatives and Manufacturing
Cooperatives create access to economic opportunities for communities and their members who without organizing themselves would be unable to be actively involved in their local economic activities (Tuominen et al., 2017). In 1844 a first cooperative was established under the name Rochdale Pioneers seeking to score in economic opportunities of product supply and providing affordable living for its members (Abdallah, Bressers and Clancy, 2015). Cooperatives began intensive involvement in production due to their resilient nature in times of economic crisis and their ability to inspire mutual contribution from members when industries are not performing at a required level (Khan et al., 2016). There are programmes supporting cooperatives to be in manufacturing both in the United Kingdom and in South Africa. These programmes are run by government and other stakeholder groups.

1.3 Research problem and objectives
The research problem investigated in this study can be described as the challenge of education intended for business and operational development in cooperatives (Delgado, 2014). The inadequate skills and intellectual capital among cooperatives is a problem (Cachioni et al., 2014). In South Africa this problem has led to a staggering 88% failure rate among cooperatives. This paper seeks to conduct a review of skills and education programmes useful for cooperative enterprises. In this paper a comparison of skills training programmes offered in UK and South Africa is done. The United Kingdom has a high rate of cooperative survival and it is against this that it is worthwhile to do a comparison, and draw lessons for South Africa’s cooperative training programmes.

2. Literature Review
A cooperative is an autonomous enterprise that is collectively owned by members on the principles of democracy, equality and self-help (CHRISTOFOROU, 2010). Cooperatives contribute to redistribution of economic opportunities, participatory development and ensuring sustainable neighborhoods (Purtik, Zimmerling and Welpe, 2016). Manufacturing cooperatives compete at the forefront of key economic sectors namely energy, agriculture, education and clothing textile production (Abdallah, Bressers and Clancy, 2015). Cooperatives also embody the triple bottom line values of social participation, economic benefit for all, ecological preservation and sustainability (Tuominen et al., 2017). According to Bretos and Marcuello (2017) face challenges of viability, stability and are often confronted with tensions. These challenges impact on human capacity development, inter-sectoral collaboration and economic self-reliance (Raniga, 2017). The following diagram substantiates this literature and it explains linkages of educational competencies on cooperative performance.
Members’ participation in a cooperative refers to their active engagement in meetings, operational activities and the general business of the enterprise (Tham and Muneer, 2013). Structural capital is internal resources such as information systems, processes, database and intellectual property (Khan et al., 2016). The relationship with the external environment determine market success through stakeholders such as suppliers, competitors and customers; the ability to work and influence these stakeholders is called relational capital (Kalmi, 2013). Human capital is all the skills, talent, creativity and education which lies within employees of an organisation (Pearce et al., 2016).

Although these factors of cooperative performance are known and explained there still are barriers to success for cooperatives. According to Wessels and Nel (2016) these barriers are:

- Poor business planning
- Lack of training
- Poor market links
- Prioritization of political over economic considerations

The motivation in the founding cooperatives is based on human needs for survival and aspirations for higher level needs (Cachioni et al., 2014). The Maslow’s hierarchy of needs explains that human beings with an economic capacity are prepared to take action to fulfill their human needs starting with the basic ones (Lester, 2013). Housing and education cooperatives play a key role in fulfilling the first level physiological needs (Delgado, 2014). Obtaining economic independence and social fulfillment through cooperative enterprise involvement it progresses members to fulfill their needs for esteem, affiliation and self-actualisation (Sadri and Bowen, 2011). Cooperative enterprises need member development programmes to achieve organisational competence that will enable them to deliver the promised reward for its members and communities (Wahlgren, Mariager-Andersen and Sorensen, 2016). The high involvement of retired and senior members of society in cooperatives is said to require sustainable adult education to improve skills of those involved voluntary in associations of mutual interest such as cooperatives (Holford, 2016). The imbalanced access to education and other technical training for communities creates problems of sustainability in economic projects initiated by underserved communities for the purpose of their own upliftment (Manuel and Popov, 2016). Widening access to adult education and non-formal education for communities seeking to participate in economic opportunities is proposed as a theoretical solution in the field of technical education with reference to small scale manufacturing activities (Boyadjieva and Ilieva-Trichkova, 2017). Adult education for better cooperatives has to meet the requirements of relevance, methodologically beneficial, outcome driven and have a focus on locality (Seyoum and Amdemeskel, 2011). Return on capital investment made into adult education is realized when recipients take action to be involved in the betterment of their communities through charitable organisation and cooperative formations in delivering resilient socio-economic solutions as well as ensuring that their enterprises are sustainable (Tisdell, Wright and Taylor, 2016).

This literature addresses cooperative performance factors and provides a theoretical basis for adult education role in the performance of cooperatives involved in production. The following section is research design which entails protocol and procedures of this research study.

3. Research Design

A desk review of reports is done in this paper (Welman and Kruger, 2001). The focus is on the skills and educational programmes which are intended to address complex literacy needs in cooperative enterprises in South Africa and in the United Kingdom. Gaps in the training and skills programmes are identified in the challenged cooperatives movement of South Africa and the successful cooperatives movement of the UK.

CoopsUK database and training programmes
The nature of information sourced for the purpose of this desk-review paper was on education and training programmes intended for cooperatives. In the UK reports from CoopsUK association were sourced as this is the advocacy organisation on the delivery of educational programmes intended for cooperatives’ members. In South Africa reports from the Department of Trade and Industry on the training programmes designed for cooperatives were used.

**Comparison of reports**

This paper presents a comparative study of skills and training for cooperatives in SA and UK. The purpose of comparison is to analyse and understand gaps in the educational programmes intended for advancement of cooperatives. The UK cooperatives are more successful than those of South Africa. In South Africa the last reported mortality rate of cooperatives was in 2009 which reported that 88% of cooperatives failed annually, this hasn’t changed. However, due to the universal nature of cooperatives the comparison of reports on training shall shed light on skills and training gaps in South Africa’s cooperatives versus the successful UK cooperatives.

**Criteria for selection of reports**

Reports on educational programmes for cooperatives in the manufacturing business sector were selected. These reports were sourced from publicly accessible databases of the CoopUK which is an organisation tasked with the role of advancing cooperatives to be competitive and resilient enterprises through education and resources. Reports on the South Africa’s cooperatives were sourced from the Department of Trade and Industry Report Archives on cooperatives development. The reports period is from the years 2010 – 2017. Reference is also made to reports from the International Cooperative Alliance (ICA) as the mother-body of cooperatives internationally.

**Addressing the purpose and quality**

Comparison of the different skills sets provided in South African and the UK is done on this paper. A moderation of these educational programmes and skills is done based on the ICA standard themes on cooperative educations. A qualitative discussion is provided about the gaps identified and tables are provided to demonstrate the existing gaps (Welman, Kruger and Mitchell, 2003). Relevant theories are used to describe the identified gaps in order to ensure quality, rigor and relevance of this paper in the field of industrial engineering and manufacturing.

### 4. Findings and Results

The success rate of cooperatives in the United Kingdom is higher in comparison to South Africa. Although statistically it is difficult to confirm since most cooperatives do not deregister when they cease operations (The Guardian, 2013). On this findings and results section the comparison of skills sets with focus on manufacturing cooperatives is provided and a brief analysis. The skills sets or areas of training are members participation (start-up knowledge and involvement), structural capital (organisational systems enabling production), relational capital (stakeholder engagement and market access) and human capital (talent, teams and key skills development). The table below reports the following:

- The CoopsUK, which is formation for cooperatives development in the United Kingdom, and the South African Department of Trade and Industry (DTI) have massively dedicated focus on training cooperatives on members’ participation as evident for all reports provided.
- As part of support services the DTI offers technical skills development which is sector specific. In the UK cooperatives movement finance and governance education is considered as important to structural and relational skills.
- CoopsUK supports skills development by developing manuals that address organisational processes and systems.

<table>
<thead>
<tr>
<th>Educational Factors (Areas of training)</th>
<th>Members’ Participation</th>
<th>Structural Capital</th>
<th>Relational Capital</th>
<th>Human Capital</th>
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<tr>
<td>Skills Report Document Titles (UK/SA)</td>
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Table 1. Comparison of Skills Transferred to Cooperatives in the UK and South Africa with Focus on Manufacturing Cooperatives
In summary, the training of cooperatives is a primary preamble and it is prescribed by the International Cooperative Alliance. In addressing challenges faced by cooperatives in manufacturing, the Department of Trade and Industry in South Africa offers sector-specific training for cooperatives in brick, clothing, agro-processing, and furniture manufacturing. The CoopsUK offers manufacturing cooperatives and other cooperatives skills to self-sustain without over-dependence on the movement or other government agencies. The following table displays the skill sets delivered by the CoopsUK and the DTI. The CoopsUK provide training support that responds to all areas through finance education, governance and compliance, and organisational systems and processes management training which is essential to manufacturing operations. The UK cooperatives movement has a general focus on community enterprise development and this is seen in the reports indicated on Table 1. There is a limited focus on training programmes for South Africa. The in-depth focus is on sector focused skills and finance training.

<table>
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<tr>
<th>United Kingdom</th>
<th>South Africa</th>
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<tr>
<td>CoopsUK</td>
<td>Department of Trade and Industry (DTI)</td>
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<tr>
<td>Hands-on finance skills training</td>
<td>Sectoral skills training</td>
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<tr>
<td>Governance and compliance skills training</td>
<td>Finance training</td>
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<tr>
<td>Organisational systems and processes training</td>
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Table 2. Cooperative Development Skills Applicable to Manufacturing Cooperatives

There are other skills sets which are not directly related to manufacturing in cooperative enterprises but which enable them to grow and sustain their members’ involvement. These skills are described on the different reports as follows:

- **Social Cohesion skills**: Empowering involvement of women, people with disabilities and youth.
- **Technology skills**: Use of computers to facilitate market and community access.
- **Fundraising skills**: These skills include the ability to access funds and resources for organisational sustainability.

All the different skills sets are evidence of the determination by cooperative support structures to distill collective expertise that advances cooperatives to function sustainably in competitive manufacturing business sectors. The next section is a discussion and presentation of recommendations.

### 5. Discussions and Recommendations

The development of cooperatives to be fit for manufacturing and competing in production sectors is not prioritized in the training of cooperatives based on the reports studied in this research. However, the efforts of CoopsUK and DTI South Africa show an interest in bettering conditions of cooperatives and communities working on common interests. This paper also provides an interesting contrast between a developed country and a developing one. The following are recommendations for South Africa to address the problem of poor performance and the high failure rate of cooperatives in the country.
Cooperative focused training: provision of hands-on training for skilled youth can help better the development of cooperatives which are often run by adult group with no previous education due to the past injustices in South Africa which makes a big difference in comparison to the United Kingdom.

Opportunity search and evaluation: assisting cooperatives in understanding criteria of measuring gaps in their markets of choice.

Strong cooperative movements focused on training: supporting inter-cooperative training and sharing of industry expertise as well as good practice.

Advancement in cooperative university projects: having university based programmes focusing on cooperatives and shared education that can advance knowledge about cooperatives.

6. Conclusion and Future Research
In conclusion is that cooperatives are essential community enterprises as they help facilitate access to goods and services for underserved communities. Cooperatives also promote general skills development in communities that are interested in trade and production. Advancement of training programmes and learning from successful cooperative practices in the UK and in other countries can help South Africa to reduce the failure rate of cooperatives in the country. In this paper we find that there is a limited skills set in South Africa for cooperatives in comparison to the UK. While there is funding and other support resources the failure rate hasn’t reduced which is evidence that government agencies have not been able to help cooperatives hence our call for intensive university based programmes to holistically address educational needs of cooperative members. Future research may be an empirical study that evaluates skills of cooperative members to provide a better understanding of skills gaps in relation to production and manufacturing cooperatives.

Acknowledgements
My appointment as a Research Associate to the University of Johannesburg’s Faculty of Engineering and the Built Environment was an enabler to making this research study a possibility.

References


Biography

Michael S. Mkwanazi is a Research Associate in the Faculty of Engineering and the Built Environment at the University of Johannesburg in South Africa. Mr. Mkwanazi holds a National Diploma in Entrepreneurship, Bachelor of Technology Degree in Operations Management, and Master of Technology Degree in Operations Management (Cum Laude) from the University of Johannesburg and a Postgraduate Diploma from North West University. In 2017 he was awarded the prestigious Rhodes scholarship to pursue an MSc degree in Business Management – Entrepreneurship at Oxford Brookes University. He is also admitted to the University of Oxford to read for a DPhil. Education degree programme from October 2018 focusing on Entrepreneurship Education Ecosystems. In 2016 he was recognized as a runner up for the Queens Young Leaders Initiative which is managed by the Cambridge University Institute for Continuing Education. He has published some conference papers in the field of co-operatives and on system reliability under IEEM.

Charles Mbohwa Professor Charles Mbohwa is the Acting Executive Dean at University of Johannesburg’s (UJ) Faculty of Engineering and the Built Environment (FEBE). As an established researcher and professor in the field of sustainability engineering and energy, his specializations include sustainable engineering, energy systems, life cycle assessment and bio-energy/fuel feasibility and sustainability with general research interests in renewable energies and sustainability issues. Professor Mbohwa has presented at numerous conferences and published more than 150 papers in peer-reviewed journals and conferences, 6 book chapters and one book. Upon graduating with his B.Sc. Honors in Mechanical Engineering from the University of Zimbabwe in 1986, he was employed as a mechanical engineer by the National Railways of Zimbabwe. He holds a Masters in Operations Management and Manufacturing Systems from University of Nottingham and completed his doctoral studies at Tokyo Metropolitan Institute of Technology in Japan. Prof Mbohwa was a Fulbright Scholar visiting the Supply Chain and Logistics Institute at the School of Industrial and Systems Engineering, Georgia Institute of Technology is a fellow of the Zimbabwean Institution of Engineers and is a registered mechanical engineer with the Engineering Council of Zimbabwe. He has been a collaborator to the United Nations Environment Programme, and Visiting Exchange Professor at Universidade Tecnológica Federal do Paraná. He has also visited many countries on
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