

# **CCSE** | Conference on Cooperatives & The Solidarity Economy

## Conference on Cooperatives and the Solidarity Economy (CCSE)

2021

### Conference Proceedings

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### Partners



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## **Message from the Conference Chair**

The Inaugural Conference on Cooperatives and the Solidarity Economy brought together researchers to present their research on the cooperatives and the solidarity economy over a period of two days. Sixteen papers were presented in two parallel sessions over the two day event. All abstracts accepted for presentation at the conference were subjected to double-blind peer review. The conference proceedings brings together a selection of nine manuscripts from the papers presented at the conference. The full manuscripts included in the conference proceedings were also subjected to double-blind peer review. We thank all the reviewers who ensured that the manuscripts meet the highest level of academic standard. Special thanks also to members of the conference scientific and organising committees for their strategic guidance.

Special thanks to our keynote speakers who set the tone for the discussions that ensued over the two days. The Keynote Opening Address on the first day of the conference was delivered by Mr Leonard Okello, Chief Executive Officer, Uhuru Institute, Uganda. Professor Esther Gicheru, Deputy Vice-Chancellor at the Cooperatives University of Kenya delivered the Keynote Opening Address on the second day of the conference. The main conference was by a pre-conference young scholar event.

To our panellists, Ms Sebonkile Thaba from the University of Johannesburg, Mr Thapelo Obateng, ICA Africa Board Member of the International Cooperative Alliance Africa, Southern Africa Region and Mr Orapeleng Nareetsile Secretary-General, Botswana Youth Co-operative Alliance, we thank you for the insightful discussions that closed the conference.

We thank ICA CCR for the financial support of the young scholar workshop.

Andrew Emmanuel Okem  
Conference Chair

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# Solidarity and development: Cooperative Agency as Practiced by Beneficiaries of Social Grants in Soweto

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## Abstract

South African social grants cover over a quarter of the population in fulfilment of the dictate of the Constitution on social assistance. A huge body of literature on the financial intervention has shown remarkable material outcomes in nutrition, schooling, and reduction in poverty and unemployment among other development index indicators. What has been less known, and it is the aim of this paper, is the understanding of the contribution of social grants to solidarity economy in Soweto. This aim is operationalised through exploration of solidarity and cooperative behaviour among social grants beneficiaries. Giddens' concept of agency is insightful in understanding the impact of social grants in generating and sustaining solidarity economy in a community where poverty and unemployment is the norm. Qualitative interview of 17 purposefully selected beneficiaries was conducted. Each participant granted three sessions of interviews. Atlas-ti software was used in the organisation of the generated data for thematic analysis. Social grants were found to enable the beneficiaries to participate in solidarity economy in the community. Formation and memberships of *stokevel*, street contribution solidarity, and funeral society were among the avenues. Besides, being used as a financial capital, social grants served as an enabler of the local economy given the high poverty and unemployment in the area. This paper highlights the critical role social grants play in the initiation and maintenance of solidarity economy.

**Keywords:** agency theory, structuration theory, solidarity, social grants, *stokevels*, Soweto, South Africa.

## 1. Introduction

The socio-economic circumstance of South African townships makes relevant the understanding of how residents in those communities maneuver limited resources to ensure survival. The concept of agency of such residents more especially of grant beneficiaries is poorly understood (Nnaeme 2018, p. 43). Giddens' theory on agency as "the capability of individual[s] to make a difference to pre-existing state of affairs or course of events" (Giddens, 1984 p.14) will be helpful. Agency points to "the capacity for social actors to reflect on their position, devise strategies and take action to achieve their desires" (Bakewell, 2010

p.1964). The phenomenon represents the agents' capacity to perform purposeful actions geared towards actualisation of a better socio-economic reality (Oosterom, 2016, Giddens, 1984). This notion of agency as the capacity to influence one's state of life was corroborated by Harvey (2002), Bandura (2001), and Sen (1999) who linked the concept with bringing about purposeful transformation to one's current state of affairs. For instance, Bandura (2001) posits that agency resonates with actions which enable human beings to be both producers and products of social realities, and not just onlookers, or animated conveyers of social realities around them. It reflects an agent's capacity to channel actions towards overcoming constraints (Oosterom, 2016 p.19). However, Baber (1991) and Archer (1982) criticise structuration theory (ST) for "elegant compromise" of agency and structure irrespective of how societies actually work. Archer (1982) avers that ST is non-propositional in that it does not indicate how the balance between the two constructs manifest in specific contexts. Furthermore, Archer suggests that the two terms are conflated with agency being privileged by giving more power to the capacity of agents at the expense of structure, a view that was echoed by Barber (1991).

Agency as a theoretical concept has been identified at two levels: individual and community (Bandura, 2001). At the individual level agency is seen as the capacity of a person to act purposefully in ways that would lead to the transformation of current socio-economic situation. The individual primarily relies on themselves and limited available resources to ensure the betterment of their circumstance. At the communal level, agency is exercised collectively towards the realisation of a better socio-economic condition. In this instance, agents appreciated the limitations of individual endeavors in tackling challenges that are beyond them. Hence, they unite their resources and capabilities in support of each other. Agency at the communal level is the focus of this paper but not in isolation from the individual level of agency.

South Africa's constitutionally guaranteed and publicly-funded social assistance programme is an example of a new generation of innovative social protection strategies that have emerged in low-and middle-income countries in Africa, Asia and Latin America (Patel, 2015, World Bank, 2015, Barrientos, 2013). An institutionalised welfare policy for white people co-existed with a residual welfare system for black people (Seekings, 2000, van Niekerk, 2003) was expanded after 1994 to gradually right the wrongs of past institutional policies that perpetuated and maintained "... shocking levels of income poverty" (Seekings and Natrass, 2015 p.3). The context of high income poverty amid other negative legacies of apartheid prompted the democratic government to widen social welfare provision in line with Section 27 (c) of the 1996 Constitution which upheld the right to social security and social assistance in particular, for those who are unable to provide for themselves (Republic of South Africa, 1996).

In the light of drastic rise in poverty and unemployment, social grants, in most households, become the sole source of income (Schenck and Blaauw, 2011). The constitutionally guarantees financial intervention for those who are unable to meet their needs, has reduced

high poverty rates in the post-apartheid era (World Bank, 2018). The further expansion of social grants to over 40% of the population is a clear testament to the pandemic of poverty and unemployment prevalent in most townships. However, the value of social grants has been shown to be insufficient to meet even the basic needs (Zembe-Mkabile *et al.*, 2018), as it is established that the fund account for 10% of the consumption needs of the people in poverty in low-income countries. The cash support represents 21% and 37% of the consumption needs of the beneficiaries in lower-middle and upper-middle income countries, respectively (World Bank, 2015 pp.2-3). The question arises as to how beneficiaries bridge the gap between the grants and their needs since they are unemployed and in poverty? Building on the some beneficiaries exercise of agency at an individual level (Nnaeme 2021; Nnaeme *et al.*, 2020), this paper explores the exercise of agency at a communal level. This paper explores the role of social grants in the formation of cooperatives that enable residents of Doornkop in Soweto organise resources towards the betterment of their members.

## 2. Materials and methods

Narrative research design was employed in the exploration of solidarity and cooperative activities among social grants beneficiaries in Doornkop. It is a design that allows adequate consideration of participants' socio-economic contexts (Polkinghorne, 1995), and encourages for an exploration of their lived experiences expressed through stories (Clandinin *et al.*, 2017 p.90). It ensures production of knowledge that is cognisant of the 'situated, partial, contextual, and contradictory nature' of human experiences represented in stories (Hendry, 2007 p.489). The unique importance of this design rests on the notion that 'a storied narrative is the linguistic' medium that gives both a glimpse into and maintains the complexity of human experience (Polkinghorne, 1995 p.7). The design appreciates that human beings are not simply passive conveyors of socio-economic affairs, 'but have certain inner capacities' (Garrick 1999 p.149) to unite for a particular course.

The application of the design allowed for a contextually informed understanding of the contribution of social grants to solidarity economy in Doornkop, Soweto. The study area is one of the poorest wards in the City of Johannesburg. The community of Doornkop, ward 50, is the 10th most deprived ward in the City of Johannesburg (De Wet *et al.*, 2008). The continued existence of poverty despite the receipt of being among the highest beneficiaries of social grants shows the insufficiency of the monies received amidst high rates of poverty and unemployment (Nnaeme *et al.*, 2021). In an attempt to realize the study aim, individual in-depth interviews were conducted with 17 purposefully selected participants based on predetermined selection criteria: beneficiaries of cash transfer programs, residents of Soweto, and engaged in a legitimate informal economic activity. Of the 17 participants, 10 were females and seven males. Three interview sessions per participant were conducted until data saturation was reached. The interviews created an avenue for the co-creation of knowledge between the researcher and participants whom Henning *et al.*, (2004) termed 'spokespersons of the topic of inquiry.' The participants were made aware of the aims of



the study, and assured of confidentiality, and were invited to give informed consent. Participants were given pseudonyms to protect their identities.

In the first session of the interview, I focused on the initiation and building of a trusting relationship with participants. The second session allowed for an exploration of raised issues and identification of emerging themes. This type of exploration is recommended by Knox and Burkard (2009 p.7) and Polkinghorne (2005) among others. The third session allowed me to strengthen emerging themes (Henning et al., 2004) by probing further and checking if the content of interviews was accurately understood and consistently captured. In deepening and consolidating participants' responses, the observation technique was used during the interview sessions in an attempt to '...fill gaps that are inevitably left by interviews' (Henning et al., 2004 p.100). Data generated from observation shed light on participants' responses as well as their facial expressions, gestures, tone, clothing, and other non-verbal indications (Polkinghorne, 2005 p.143). A total of over 45 individual interview sessions were held with the participants who were all beneficiaries of the three main types of social grants (Child Support Grant; Disability Grant, and Old Age Grant).

Thematic narrative analysis (TNA) techniques were used to analyse the data generated data. Atlas. ti software program was used for systematic analysis of the data (Babbie, 2016). The TNA was used, especially the step-by-step procedure in 'identifying, analysing, and reporting patterns (themes) within data' (Braun and Clarke, 2006 p.79). The data were classified into themes in direct response to the study question. The limitation of TNA that I was mindful of was the techniques' dependence on a recollection of experiences and the likelihood of selective remembrance of incidents (Nnaeme et al., 2020; Lieblich et al., 2011). Credibility enhancing aids such as research diary, free association, and follow-up visits were used. Research diaries help with the trustworthiness of the research process and findings.

### 3. Main findings

In demonstration of social grants beneficiaries practice of cooperative agency in Doornkop Soweto, three themes were identified. The three themes include: formation and membership of *stokvels*; street contribution solidarity membership; and funeral society membership. The central role of social grants in the daily living and community participation was an overarching theme for all the participants.

Given the vulnerability context in which participants lived, they devised and used various financial management mechanisms such as *stokvels* which were popular among most participants irrespective of age, gender, and grant type. *Stokvel*<sup>1</sup> is a savings collective of members who regularly contribute an agreed amount regularly, and the members take turns to receive a lump sum payment of their contributions (Nnaeme *et. al.*, 2020 p.4). None of the *stokvels* to which participants belonged were registered at the time of the study. However,

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<sup>1</sup> *Stokvel* is an Afrikaans words that describes the common practice in South African townships where a group of people with similar purpose come together to contribute money regularly for members.

they function and operate as a cooperative, which provides a platform for group collection of resources for the good of its members. Interestingly, their popularity and effectiveness in South African townships raise critical question regarding whether registration is the key characteristics of cooperative or not. Stokvels were locally formed and managed *stokvels* among friends with a common interest to save, and rotate the payouts among themselves on a monthly or weekly basis. Rotating credit and savings schemes are well documented in South Africa and in the southern African region (FinMark Trust, 2018). Participants were found to belong to various forms of *stokvels* that depend on the amount contributed, the period of its contribution and the purpose of the *stokvel*. The largest *stokvel* group existed among mainly female pensioners who contributed R1 000 monthly, followed by R500. There were others that contributed R350, R200, R100, and R50 weekly or monthly depending on their ability to contribute. *Stokvels* with smaller amounts mostly had beneficiaries of the CSG who received a small grant value compared to pensioners and persons with disabilities who received approximately two-thirds more than the CSG beneficiaries. However, Nomusa, a 43-year-old beneficiary of three CSGs belonged to a R1 000 *stokvel* to which she combined the grants that she received for three children in order to contribute a higher amount. According to the participants, *stokvels* did not yield interest nor cost any money. Members only received what they had contributed when their turn came around to receive the payment. The two main reasons for joining a *stokvel*, was first, to raise capital for a business or a big project or purchase; or second, to share in the groceries bought at the end of the year.

Two of the participants initiated stokvels among friends and fellow church members. The initiation and membership were found to be connected to a participant becoming a social grants beneficiary. Jolly narration of how and why she formed a stokvel is insightful:

*I approach some other people so that we can come together to do stokvel. I was the person that started the stokvel. For instance, I have R10000 somewhere now which I have to go and give to a member who is supposed to get the money for the month. At that time disability grant was R1300. Then it was possible for me to contribute R1000 which was the agreed amount every month. At that time my husband was making some money that we usually use to buy food to eat. So I took my monthly disability grant for stokvel with that group. I think we were six members then. When I got my R6000, I started business. First of all, I bought material and started producing shoes and selling them. I still got shoes in my room. At a stage I got tired of making shoes, when you get older you get tired. I stopped making shows and started something else.*

When she became a pensioner in 2016 she initiated another stokvel of ten women pensioners who contribute R1000 each month from their pension. She wanted to pull every one of them into business as she went in search of what they can sell and make profit individually. In her words:

*I went to a factory in Doornfontein where they are making All Star tekkiess (a brand of sneakers), I talked to the man in-charge. I told him that I am a businesswoman, that I will like to start selling tekkiess. So I asked him if he can sell to me at stock price since I am also selling. He agreed with me. So I came back and talked this stokvel members. I said to them that we can buy All Star tekkiess at a cheaper prices and sell to make profit. They agreed. So they gave me money, I went to the factory and stocked. When I returned we shared the tekkiess among us so that everybody will start selling individually what they have got.*

The business was for individual members of the stokvel to sell their share of tekkiess and make profit for themselves. However, after a few days some started complaining that they are shy to sell theirs, other sold theirs and made profit. Jolly said that she eventually took from those who could not sell theirs, and balanced them their capital in the business. Similarly, Mandi, a 70 year old pensioner described how she formed a stokvel consisting of her fellow church members when she began receiving social grants. According to her:

*After I became a pensioner I invited five of my church members who are also pensioners like me. I said to them that we must start something that will help us to save money. I spoke to them and they agreed and we said that we must be only six. All of us live around here and attend the same church, St Paul Apostolate Church. We contribute R1000 each every month from our pension money and give it to a person. Next month we contribute for another person. When it got to my turn, I used the money to start making back rooms for rent (which was already completed by the time of the interview).*

Both Jolly and Mandi utilised their positive community reputation in initiating stokvels that were geared toward encouraging members to save and improve their socio-economic conditions. Nondumiso is the only participant that was involved in grocery stokvel where members contribute R350 every month, and at the end of the year they use the money to buy groceries and share among ourselves. Common among the participants is the link between receipt of social grants and stokvel formation and membership.

The second theme is street contribution solidarity to which most participants belonged and contributed from their social grants. Street contribution solidarity is a term used to describe the common practice among participants in same neighbourhood on how they support each other, and the role of social grants in such practice. Doornkop is mainly an African township made up of people from different ethnic backgrounds who formed various solidarity groups aimed at helping one another. The most prominent is street contribution solidarity where members support their neighbours in times of bereavement. Jolly initiated her own street contribution solidarity activities when needed due to the high cost of funerals. According to her:

*I belong to our street group that contributes R50 for meat and R30 for groceries once a member dies. I am the person that started the group for our street because I found out at times that there is no food or money in the house when somebody dies. So I was convinced that we can form the group so that the family cannot struggle during the funeral in looking after people.*

In another street, similar contribution were for only women. According to Gladys, “whenever there is a funeral we contribute something for the family. We are a group of women around here, we use to contribute R20, but now it is R40 for the family once anybody dies. We contribute only when there is a funeral in the family of the members only. The money is used to buy groceries for the funeral. The groceries are for feeding the people that come around during the funeral.”

The third theme is funeral society membership. Membership of funeral society is another solidarity grouping that was prevalent among participants. For instance, Patience narrates the operation of the society in as follows:

*Besides street solidarity group, I also belong to a funeral society we are 45 women members and we have 45 items. So each person has to buy an item each time anybody covered in the society dies. For example the last time somebody died one month ago, the leader called me and told me that it is my turn to buy item number 5 which is 12.5kg of maize meal. I did that. She has to call all the members and tell them their number of item to buy. She tells us the number of item and we know what that number represents. After we buy those things we send it to the family that lost someone. In that society we were allowed to give ten names of our family members to be covered. If any of the ten people passes away we will contribute for that member.*

In summary receipt of social grants was demonstratively instrumental in participants active engagement with others through membership associations that were aimed at improving their socio-economic positions in the community. In other words, social grants were pivotal in the initiation and sustenance of solidarity among participants in Doornkop, Soweto.

#### **4. Discussions**

Through the theoretical lens of Giddens’ theory on agency the participants transformed constitutionally guaranteed financial assistance into an instrument through which they collectively sought to better their lives. Formation and membership of stokvel, street contribution solidarity, funeral society, which most joined once they became beneficiaries, can be interpreted as an “to make a difference to pre-existing state of affairs” (Giddens, 1984 p.14) at a communal level. This is a mark of agency at a group level since it demonstrates participants as “social actors” who reflect on their socio-economic conditions, decides on appropriate actions to ameliorate the negative consequence (Bakewell, 2010

p.1964). Though the purposeful action to initiate various solidarity groupings may be individual in nature, the need to cooperate with others is an acknowledgement of realities and an attempt to utilise economic of scale. As noted above the receipt of social grants became a catalyst for the formation of multiple communal cooperative that were aimed at supporting and growing community members faced with high poverty and unemployment. The social grants enabled them to become really social actors who, though in a little way, shape their circumstances.

The question is whether the formation and membership of stokvels, street contribution solidarity, and funeral society qualify to be termed cooperative or not? In the study area where most resident engage in survival activities, cooperative as a form of unification of resources is common. It may not be formally formed but it actualises the purpose for its formation, which is for saving and generation of a higher capital for a project or business. Through them participants exercised agency at a community level. As social actors, the initiators of those groups appreciate the enormity of the socio-economic challenges they face and took it upon themselves to provoke agency in others through persuasion to become members of a stokvels, for instance. The participants practiced cooperative agency as they know it and established mechanisms to grow together as members of the group.

## 5. Conclusions

This study has highlighted the solidarity impacts of social grants by pronouncing on the influence of the fund in the formation and membership of stokvel, street contribution solidarity, and funeral society. In other words, the study has demonstrated the key role of the financial assistance in promoting exercise of agency at a communal level amidst disturbing levels of poverty and unemployment. By contributing to the understanding of how social grants beneficiaries practiced cooperative agency in Doornkop, this study has extended the impacts of the financial intervention beyond their primary intended outcomes. In the light of the finding, the study advocates for a policy accentuate this grassroots innovative mechanism of capital and community building. This is because the study participants showed that social grants can serve as the grease that lubricates solidarity economy amidst high poverty and unemployment in the area. Instead of being viewed as drain on the fiscus, this paper highlights the critical role social grants play in the initiation and membership of stokvels, street contribution solidarity, and funeral society, and in promotion of solidarity economy in general. This study raised question regarding whether registration is what defines cooperative or not. While the organisations were not registered, members had “a common or shared enterprise” for which they joined and participated. Further research will need to explore the prevalence of the link between social grants and membership of stokvel, street contribution solidarity, and funeral society. This will also reveal the potency of popularizing such mechanism in dealing with the limited capital which is the bane of informal economy.

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## Conflict of Interest

The author declares that there is not competing interest.

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## **Cooperatives in Rwanda and the Building of Reflexive Agency: connecting positive peace and development**

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### **Abstract**

The key objective of this study is to understand the pathways towards a peaceful living with sustainable and inclusive development, based on the case of Rwanda. Troubled by protracted cycles of violence and their aftermath, international organizations and nation-states are calling both civil society and business, including cooperatives, to contribute with solutions. Understanding peace as positive peace (Galtung, 2011), this qualitative study focuses on Rwandan cooperatives in coffee, crafts, arts, transport, and tourism, as well as women-led cooperatives in these sectors, in the following regions of the country: Kigali, Gasabo, Kicukiro, Huye, Nyaguru, Nyamagabe and Musanze. Two fieldwork visits and interviews were carried out in 2018 and 2019. The same questionnaire was used in all group interviews, with differentiated questions only for the National Confederation of Cooperatives and the Rwanda Cooperative Agency. Atlas.Ti software was used in data analysis, with two main codes appearing: reflexive agency and impact multiplicity. Cooperatives' impact included social and community organization, education and training, health and nutrition, investment, solar energy uptake, women leadership and empowerment, voluntary contributions and participation in rebuilding the country, exports in economic sectors such as coffee, raising equality and building livelihoods. Following Archer (2013) modes of reflexivity, two main modes were observed: a) communicative requiring confirmation by others, and b) autonomous self-grounded leading to action. The study observes that cooperatives can contribute to building human capability, reciprocity, and reflexive agency through collective action. The practical implications for society and government are that such a peacebuilding process, locally grounded and embedded, benefits all for the long-term and deserve the attention and support in policy planning. It is recommended that policy choices consider global challenges and changes to step beyond the usual economic thinking in terms of dichotomy between national needs of development for all on the one hand and attracting investment into infrastructure investments on the other. There are models of cooperatives that appear to be unknown to the country's policy makers, which may respond to their country's needs. Visiting, learning and listening to many other cooperatives in the world is advisable. Their model deserves further research, in particular regarding their impact multiplicity, avoiding a unilinear or unidimensional focus.

**Keywords:** reflexivity 1; positive peace 2; Rwanda 3, cooperatives 4, collective agency 5

## 1. Introduction

The key objective of this study is to understand the pathways towards a peaceful living with sustainable and inclusive development based on the case of Rwanda. Troubled by protracted cycles of violence and their aftermath, international organizations and nation-states are calling on both civil society and business, including cooperatives, to contribute to solutions. Cooperatives are recognized as post-conflict community-based organizations that are fundamental for rebuilding but are expected by some to be replaced thereafter. The first section on theory connects peace studies, cooperatives, and reflexive agency. The second section introduces the policy framework in which cooperatives have evolved. The third section presents the findings related to cooperatives' contributions in the case of Rwanda based on two fieldwork visits and interviews carried out in 2018 and 2019, followed by a discussion and conclusions. This is a qualitative study focusing on Rwandan cooperatives in coffee, crafts, arts, transport, and tourism, as well as women-led cooperatives in these sectors, as a sample in vital areas for peacebuilding and development. The methodology follows a constructivist grounded theory approach and is based on in-depth interviews on the one hand, and data collection on the other, during the field research mentioned above, plus a follow up work carried out at distance due to the Covid-19 pandemic. Main findings show that cooperatives have been offering the space and infrastructure for reflexive agency, building capabilities that connect positive peace with development. Examples and evidence of their efforts point to a long-term path towards fairness, equity, and a more just and inclusive economic development on a sustainable and peaceful basis. In conclusion, the study observes that cooperatives can contribute to building human capability, reciprocity and reflexive agency through collective action, provided the cooperative identity is acknowledged and respected in full. The practical implications for society and government are that such a peacebuilding process, locally grounded and embedded, benefits all and for the long-term.

Before entering the case study, a brief background may help situate the reader. Rwanda is a landlocked country with the highest population density of all Africa. There is an important tradition of solidarity and peaceful solutions to conflicts called *Ubuntu*, including *Seriti* or the life force of people connected in community (Francis, 2008) (Hailey, 2008). Sadly, the most important recent event has been the Genocide of 1994, a devastating trauma with about a million people tortured and killed, most of them Tutsis, and the destruction of large part of the country. Among the many analyses of what happened and why, Piton's PhD thesis provides remarkable evidence that the genocide was due to the '*racialization*' during the colonial period of social relations and their consequent instrumentalization after the date of independence (Piton, 2018). Turshen (2001) explains how the international political economy of coffee, between deregulation, liberalization and structural adjustment, struck the rural areas with structural violence: "*the abrupt drop in the price of coffee, the principal income source for 60 per cent of Rwandan families, coupled with a 40 per cent currency devaluation in 1989*

*and rapid inflation after 1990; [and] a structural adjustment program that curtailed or reduced social services and charged for health care, schooling, and water, combined with a drought in the southern regions, which turned into a famine (Newbury, 1999)”* (Turshen, 2001: 3). Women suffered particularly during the Genocide. One aggravating condition was that they lacked land rights, but male descendants could claim them. Massive rape, including by HIV-infected males, was called *kuboboza*, literally: liberate land (Turshen, 2001: 7). While accounts of Rwanda since 1994 may diverge, its general stability and gains in development have been undeniable. The International Monetary Fund data for Rwanda from 1980 to 2020 shows an average growth rate during that period of 4.97 percent.

## **2. Theory on Cooperatives and positive peace: an approach to reflexive agency**

### **2.1. On cooperatives contributions to peace and development**

This study discusses how cooperatives contribute to both peace and development, in the case of Rwanda. The hypothesis is that cooperatives not only contribute after a shock or catastrophe but also foster local sustainable peace and development through reflexive agency for the long term. Cooperatives are positively seen as post-conflict community-based organizations fundamental for rebuilding. By being both associations and enterprises with significant potential for peacebuilding, cooperatives deliver access to credit, decent jobs and livelihoods, help restart the economy after a shock, and solve the basic needs of the population (Ettang and Okem, 2016; Havers, 2007; MacPherson and Paz, 2015; Joy and MacPherson, 2007; Masabo, 2015; Parnell, 2003; Sentama, 2009; and Wanyama, 2014). Why is this possible? Based on practical case research and theory, cooperatives provide a safe space for human interaction to rebuild trust, re-humanising the other (Sentama, 2009). Cooperatives allow for both individual and collective empowerment, including gender empowerment (Masabo, 2015). They take care of community needs (MacPherson and Paz, 2015). Cooperatives cut away middle-men and stabilise food prices, preventing hoarding and improving livelihoods and nutrition (Havers, 2007). They reintegrate socially and economically demobilized soldiers and the disabled.<sup>2</sup> Yet, some, who still adhere to 20<sup>th</sup> century neoliberal policy ideas, may take them for granted and transient as soon as things seem to be back to ‘normal’ when seeking out FDI and funding for large infrastructure projects take precedence.

### **2.2. On Cooperation and Positive Peace**

One of the many vital matters of our time is achieving sustainable peace and development; and to better understand how to promote both together. First, studying peacebuilding in terms of ‘positive peace’ (Galtung, 2011) helps overcome the predominant

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<sup>2</sup> For example Japan JICA has helped form 34 cooperatives, in a project follow up to their Skills Training for the Reintegration of Demobilized Soldiers with Disabilities (2005-2008), <https://www.jica.go.jp/rwanda/english/activities/activity06.html>

focus in peace studies on ‘negative peace’ (Gleditsch, Nordkvelle and Strand., 2014). Galtung’s ‘peace formula’ is equity x empathy over trauma x conflict. Equity, in Galtung’s words, means cooperation for mutual and equal benefit.; empathy to suffer or enjoy the suffering or joy of others. Trauma stands for past violence dealt with by reconciliation; and conflict is solved by resolution. As the first two grow, the latter two may weaken.<sup>3</sup> Therefore, cooperation, mutuality, equality, equity, and empathy come to the fore, as “*peace is made neither by culture alone, nor by politics and economics alone. It is made by all three, synergistically. The formula for peace is always equality, equity, and mutual respect.*” (Galtung and Fischer, 2013, p.153)

### **On collective action in the face of risk, inequality and violence**

Growing inequality does not only detract from development but also accentuates the risk for violence and strife. Inequality, in large part due to a shift favouring capital to the detriment of labour, ends by endangering both human development and social cohesion (Brada & Bah, 2014). The search for answers to protracted conflict and rising inequality remains relevant because, following Ulrich Beck, in late modernity, states and societies seem to be distributing risks rather than resources, and all suffer the consequences through wars, pandemics and impacts of climate change, while many suffer abhorrent violence and even genocide. In the context of protracted conflicts and violence, risk and vulnerability exacerbate inequality. Beck considers them as human-made crises, together with climate change and global financial crises (Beck, 2009).

Following Ulrich Beck, Margaret Archer, Fuyuki Kurasawa and David Held, human group capabilities are our hope to build a better future. Faced with human-made crises, we are compelled to respond to the present ‘world risk society’ through a wave of ‘reflexive modernization’ (Beck, 1986) built on solidarity (Beck, 2013). Even though Beck did not use the words ‘reflexive agency’, can there be a process of reflexive modernization without agency? He explicitly supported Kurasawa’s attention to work-oriented sub-political actors building solidarity, sub-political in the sense of civil society. Discourse and political struggles are not enough, work on the ground with a long-term vision is necessary (Kurasawa, 2004). Ulrich Beck thus opened the door to reflexive agency as a type of agency, while Kurasawa affirms that this is done through group work on the ground, namely collective action (Kurasawa, 2004).

David Held ((Held, 1992) proposes that cooperatives upholding the cooperative identity can redress inequality in a globalized, deregulated, debt-ridden era, where vulnerabilities mount and, in particular, in Sub-Saharan Africa: *‘In countries such as those of the Sub-Sahara, where the boundaries of the state (with two small exceptions) do not correspond to the boundaries of any that existed before colonization... independence has been fraught with many types of difficulty. Against*

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<sup>3</sup>Watch Johan Galtung's Peace formula by Niamh O'Connor, TranscendMedia, 2017,  
<https://www.youtube.com/watch?v=auP8mpjWr0w>

*this background, the achievement of any form of democracy is significant. Nevertheless, the achievement is handicapped by vulnerability to the international economy, by a fragile resource base... If individuals and peoples are to be free and equal in determining the conditions of their own existence there must be an array of social spheres – for instance, privately and cooperatively owned enterprises, independent communications media, and autonomously run cultural centres - which allow their members control of the resources at their disposal without direct interference from political agencies or other third parties’ (Held, 1992, pp. 27,35).*

### **2.3. On reflexivity bridging agency and structure**

Reflexivity has become part of researchers’ individual methodology and ethics. Thus, it is good to clarify how it can be applied to cooperatives and teamwork. Reflex, reflecting, and reflexivity are three words that are sometimes conflated, but do not have the same meaning. Reflex is the quick response to a stimulus, experiencing reception, transmission and reaction, outside a process of consciousness, even outside brain processes. Reflection is thinking backwards onto oneself (Finlay & Gough, 2003, p. IX)<sup>4</sup>, illuminating the shadows of our path and performance, and possibly that of others close to ourselves and our surrounding environment. We thus reflect on the ‘who’ and the ‘why’ of what we have done. Reflection is about introspection (Finlay, 2002). While reflecting is taking stock, reflexivity is devising. While reflecting is about sameness, reflexivity is about epistemological grounding, revised critically with others interacting among themselves, working or living together. Reflexivity includes reflection, not the other way around. Reflexivity should not be confused with reflectivity or self-reflection and needs to be applied to other domains beyond individual accounts such as those of academic researchers “to a collaborative, reflexive sensibility which is (ethically) mindful of the wider contexts” (Lumsden, et al., 2019, p. 16).

Margaret Archer’s ‘reflexive imperative’ offers a similar argument, but instead of Beck’s ‘reflexive modernization’, she proposes ‘reflexivity’ as a normal human capacity mediating mechanism between structural habituation, social interaction, and structural elaboration, becoming imperative in our times to respond to crises. Archer proposes three positive modes and a negative one: a) communicative requiring confirmation by others, b) autonomous self-grounded leading to action, and c) meta-reflexive as critically reflective and about action effectiveness in society (Archer, 2013). The negative mode is that when agency is a blocked, disoriented agency. Like Kurasawa, Archer acknowledges that voluntary association and group work can be grounded in collective reflexivity: “*Thus, the couple, the team, or the members of a voluntary association orient themselves towards the properties and powers of what they generate together, instead of towards other particular persons or typical members. It is then possible to sustain joint action and co-commitment that is grounded in a collective reflexivity that does not depend upon or fall victim to the trap of the double-hermeneutic.*” (Archer, 2013, p. 8).

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<sup>4</sup> Reflection can be defined as ‘thinking about’ something after the event. Reflexivity, in contrast, involves a more immediate, dynamic and continuing self-awareness.

#### **2.4. Reflexive agency working definition**

In this study, the working definition is the following: reflexive agency is a type of agency in late modernity, a capability that all normal human beings have in the face of multiple, intersecting and combining, incalculable human-made risks that can bring about the disregard of the most vital norms of human existence. Reflexive agency is able of effecting change towards a more sustainable and peaceful future, re/building and using resources reflexively. This late modernity agency can be experienced through group and teamwork on the ground.

### **3. Policy Framework on Cooperatives**

Cooperatives appeared in very limited number and were tightly controlled before and after independence in Rwanda (Musahara, 2012). The first official document was the Cooperative Ordinance of 1949, considered as a tool to extract labour in colonial times (Ministry of Trade and Industry, 2018, p. 13), with a revision in 1988. The first modern comprehensive cooperative law is from 2007. After the genocide, a new cooperative policy was approved in 2006 and was followed by the first comprehensive law on cooperatives in 2007. This law was replaced by the 2021 law on cooperatives with strong differences. The minimum number of persons to establish a cooperative was 10. The law allowed for Unions and Federations. Unions connected at least 3 cooperatives in the same territory or district, while federations was understood as business federations (like in Canada) with a double role, advocacy and building value chains. In 2008, the government created the Rwandan Cooperative Agency (RCA) as registrar and promotor, also covering the SACCOs (savings and credit cooperatives). In 2018, more than 3.6 million Rwandans had joined cooperatives, namely 55.3% of the population.<sup>5</sup> In 2020, RCA reported 5.2 million members. Table 1 on statistics shows their numbers by economic sector, their membership and their share capital in Rwanda Franc (FRW) for 2020. In 2021, according to national statistics, there were about 9.500 cooperatives in many sectors of the economy, established since 2005. In 2018, there were 141 cooperative Unions,<sup>6</sup> 15 cooperative Federations<sup>7</sup>, all members of the National Cooperatives Confederation of Rwanda (NCCR), which is the national representative organization. Between 2005 and 2017, cooperatives share capital grew from 7.1bn FRW to 42.1bn FRW, while a survey of 500 cooperatives indicated an accumulated investment of 240 Billion FRW (Ministry of Trade and Industry, 2018, p. 18). In the table on Statistics 2021, cooperatives' share capital outside the financial sector reach about 32.9bn FRW and an accumulated total of more than 51bn FRW.

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<sup>5</sup> [http://www.rca.gov.rw/uploads/media/Statistics\\_on\\_cooperatives-March\\_2018.pdf](http://www.rca.gov.rw/uploads/media/Statistics_on_cooperatives-March_2018.pdf)

<sup>6</sup> One cooperative Union is formed of at least of three primary cooperatives operating in the same value chain

<sup>7</sup> One Cooperative Federation is formed by at least of three Cooperative Unions operating in the same value chain.

Table 1 shows the number and percentage of cooperatives by economic sector, the number of members and their percentage of the total number of cooperative members in the country, and their share capital in FRW in 2020.

**Table 1. Cooperatives in Rwanda in November 2020**

Economic sector	Number cooperatives	%	Cooperative members only persons allowed-total	% real	Share Capital FRW
Agriculture	4706	47.35	1,130,539	21.5	9,927,897,225
Services	1685	16.95	258,470	4.9	4,408,108,108
Trading	1420	14.28	251,032	4.8	9,270,654,208
Handicraft	1112	11.19	90,813	1.7	2,047,199,430
Housing	210	2.11	48,925	0.9	5,272,768,338
Transformation	167	1.68	28,825	0.5	791,062,708
Mining	127	1.27	107,622	2.1	666,286,100
Other	74	0.74	110,608	2.1	498,431,800
Subtotal	9501	95.61	2,026,834	38.6	32,882,407,989
SACCOs (credit and savings cooperatives)	437	4.39	3,219,670	61.4	18,218,682,753
<b>TOTAL</b>	<b>9,938</b>	<b>100</b>	<b>5,246,504</b>	<b>100</b>	<b>51,101,090,742</b>

*Table by the author based on (Rwanda Cooperative Agency, 2020b, pp. 2,8).* Note: this table does not count unions and federations that appear in the source, because they include the first-tier cooperatives here above and could carry double-counting. People can be members of more than one cooperative, for example a housing cooperative, a service cooperative where she or he works, and a SACCO, all at the same time. The economic sectors follow the number of cooperatives in the country except for the SACCOs.

SACCOs are considered micro-finance in Rwanda. In 2018, Rwanda had 459 microfinance institutions, of which 20 were microfinance institutions with limited liability company status. The rest or 439 were the Savings and Credits Cooperatives (SACCCOs) of which 416 Umurenge and 23 non-Umurenge. Umurenge means sector, and therefore linked to the cooperatives' members working in the same area and same economic activity. More research is needed to explain why the two fewer units in 2021 (a merger, a closure, etc.).

How did the new cooperatives come about after the genocide? Some cooperatives did spring immediately after the genocide supported by foreign donors and projects in the coffee sector to restart the economy and exports, but most of them appeared with the 2007 law. The trauma left a trail of horror and fear. Associations were slowly formed with the support of foreign individuals, universities, and non-profits. Two other explanations help understand the passage from associations to cooperatives: the 2011 report to the IMF and the Pearl Project.

a) The 2011 MINECOFIN progress report to the IMF explains that promoting cooperatives was part of a strategy to achieve several strategic goals: to reduce donors' duplication efforts except in the health sector (page 64), to improve nutrition (page 131), to reduce youth unemployment (page 49), to channel entrepreneurship and labour in the urban areas (page 67) and to provide marketing channels after the remarkable growth in agricultural production, of which cooperatives were the significant success factor (page 42). At that time, the Rwanda Cooperative Agency – RCA – was not fully operational (page 33) (MINECOFIN, 2011).

b) The Pearl Project was a fundamental project to restart the coffee sector<sup>8</sup> and increase export revenues. It was the first of its kind, followed by others such as the WB, the EU and SNV from the Netherlands. This means that the project was key to the emerging policy towards cooperatives in mid-2000s, because the Pearl project started a few years earlier. “PEARL helped facilitate measurable outcomes that linked the work ... to successful development and poverty reduction...the farmers benefited significantly from increased resources, higher income, better health, and relevant education” affirms Collins who worried about emerging investor-lead companies reaping the benefits of the process and market creation undertaken by cooperatives, the volatility of the global market which local farmers could only endure, and the needs for further support to sustain the development of organic and specialty coffees that represented a limited volume of total production (Collins, 2012 Fall). During my field visit in 2018, the National Cooperative Confederation of Rwanda – NCCR was very active in sustaining this latter process, in terms of marketing, cupping, supporting cooperatives needs and visiting them.

As mentioned above, many associations turned into cooperatives after a new law on cooperatives was passed. In 2005, the government set a Cooperative Task Force. In 2007, the Rwanda Cooperatives legislation was passed, establishing the RCA as registrar and promotor. The coffee sector was set as priority as it was contributing to 41 % of GDP and 90 % of total employment. Cooperatives were promoted and supported by the NCCR.

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<sup>8</sup> “Between 2001 and 2003, the NGO provided approximately \$600,000 financial and technical assistance to nine cooperatives 11 , with 85% of the funding allocated to four entities: COOPAC (\$300,000), UCAR (\$105,000), ABAHUZAMUGAMBI, commonly referred to as Maraba (\$77,000) and IAKAKA/Karaba (\$42,000). Seven of the nine cooperatives, with the exception of UPROCA and COOPAC, were assisted by the PEARL Project for coffee production, processing and marketing.” (USAID, 2006). The project was extended for another 3 years (Collins 2012).



According to Katawarba, the dairy and potato sectors were also priorities. In the dairy sector, Rwanda was inspired by Amul's model in India. In the case of cassava, after a pest ruined crops countrywide in 2016, the cassava federations talked with the Ministry of Agriculture at the government level, and the government officials and federations went together to Uganda to get new seeds of a new more resistant variety. This led to the replacement and success to ensure this key national food staple. NCCR was advocating for infrastructure to raise the value-added in various activities. *“A higher production goes hand in hand with a better more infrastructure. This includes processing plants nearby. In maize is not a problem as there are in many areas. It is a challenge in the case of irish potatoes. There are centers, we think of a big plant of transformation in Musanze”*<sup>9</sup>

Regarding the first steps towards justice and reconciliation, the country established a National Unity and Reconciliation Commission in 1999 and the gacaca courts following local customary traditions. Laws against gender-based violence were accompanied by reforms of the Penal Code to facilitate reparation, and women received powers to own property and land. This facilitated the creation of cooperatives.

At the Genocide Memorial in Kigali, cooperatives are explicitly acknowledged as part of the country's foundation for a peaceful future. Cooperatives appear in the same panel together with the mention of women's empowerment, education and healthcare for all, economic growth, and the government vision, with the aim at empowering and developing Rwandan living conditions. This has been a hallmark in terms of government policy. The Kigali Memorial is part of the emergence of a new international politics and practice of memory, but this Memorial panel in particular shows the link between cooperatives and positive peace.

Key national policies regarding cooperatives have been wide ranging: from establishing policies to improve access to health with the *mutuelles de sante* (health mutuals), nutrition, housing, renewable energy, women rights, access to savings and credit (with their local SACCOs), capital investment as shown above, to build value chains for exports as shown in the Pearl Project in particular the coffee and tea sectors, as well as supporting 'industries without smokestacks'smoke (IWSSS)<sup>10</sup> such as transport (moto taxis, car taxis and trucks), logistics, crafts, arts, and tourism. Cooperatives have been important in the National Programme providing small livestock animals to members and within communities. Other key government policies have been urbanization, including dress codes. Cooperatives have donated materials, labor and money to build or rebuild schools and clinics, while in the countryside they mentioned

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<sup>9</sup> Interview with NCCR Chairman Dr Augustin Katawarba and Gerald Ngobonziza 19 June 2018.

<sup>10</sup> Smokestack is a type of chimney. Used in industry is a basic manufacturing industry that generally has gas stacks or chimneys releasing polluting, it releases byproducts of combustion into the air, such as carbon dioxide and nitrogen. According to Newman et al. (2016) Africa could better compete in global markets with 'industries without smokestacks' such as services and agro-industry (Newman et al., 258, 260-261).

rebuilding or repairing small roads and bridges during and after each rainy season. Cooperatives have also helped in the uptake of solar energy at household level, as well as all having to pay a specified sum under government requirement for health services. Cooperatives have also participated in programs to improve the roofs of houses or the materials with which houses were constructed with, in order to improve health and living conditions.

Regarding financial inclusion, a report for 2008-2012 showed that 22 % of adults were members of sectoral Umurenge SACCOs, and stated that the SACCOs had “significantly changed the landscape of formal access in Rwanda. This intervention has been successful in providing formal financial services to Rwandans who would otherwise not use formal financial services” SACCOs were categorized under the development segment, representing the “‘ideal candidate’ for formal inclusion... lack trust in banks but have high level of trust in SACCOs. Proximity to SACCOs is better than proximity to banks” (FINSCOPE, 2008)

In documents by international organizations since 1999, policy on cooperatives can be traced under the IMF and World Bank Poverty Reduction Strategy Programmes (PRSPs), especially from 2005 until 2014, after which cooperatives are no longer mentioned any more in the IMF reports. Cooperatives still appeared strongly in WB, FAO as well as Rwanda’s reports.

Since 2008, Rwanda has implemented state-led development plans: two five-year Economic Development and Poverty Reduction Strategies—EDPRS (2008-12) and EDPRS-2 (2013-18)—in view of its Vision 2020, with nested sector-specific strategies and district development plans. The Rwanda National Strategy for Transformation (NST1) is their successor for 2018–2024 based on Vision 2050.

Since the end of 2018, with the arrival of a new director at the RCA, a new path has been followed. There has been a focus on merging SACCOS<sup>11</sup> with the goal of establishing a cooperative bank with the head office possibly outside Kigali (interview with the newly appointed RCA director in 2018), promoting information technology uptake in cooperatives, and new management practices (MINICOM, 2018 January). In 2019, the World Bank states the importance of consultations with farmers outside cooperatives for price setting, “SMEs to energize private entrepreneurship”, and mechanization linked to “Reforming cooperatives”. Cooperatives, according to the June 2019 World Bank report, are important as “state-led collective action”, organized along commodity value chains. The word ‘cooperatives’ is the main one followed by “reforming” in the text (once for Ubudehe, three for agricultural price-setting that also connect to cooperatives, and three with cooperatives). (World Bank, 2019 June 25).

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<sup>11</sup> See SACCO merge, at <https://www.minicom.gov.rw/news-detail/plan-to-establish-a-co-operative-bank-to-merge-saccos-is-near-completion>

The WB report states that sectoral cooperative federations such as in rice and tea were more organized and could bring better support services such as finance, agglomeration, marketing, and equipment. Large farms by Rwanda standards were mostly members of cooperatives by 70 %. Interestingly, the call for clarity of ownership, accountability and transparency in cooperatives is sourced just once and from foreign authors (namely Zeuli, Cropp, and Schaars 2004, *Idem*, page 39). Without any reference to recent national or local research, it functions as a standard device in support of preferred policy: Regarding land, the World Bank now calls on making more land available to foreign investors because the Special Economic Zones are costly to them (*Idem*, page xiv). The WB alleges that attracting FDI with lower costs would bring in investor-led dynamism to sustain investment and growth. (World Bank, 2021).

The 2020-2025 RCA Strategic plan, which guides national policy on cooperatives, details three main goals: economic change (wealth creation, jobs, exports, savings and investment, use and management of natural resources); social change (poverty reduction, food security and nutrition, access to health and education); and governance change (improve service delivery, participation in decision-making and governance, more partnerships with public, private, civil society organizations, and development partners, contributing to gender equality, equity and women empowerment) (Rwanda Cooperative Agency, 2020a, p. 2). The document explicitly says that it abides by the ICA Statement on the cooperative identity, definition, values and principles. RCA roles should change to supervise SACCOs as well as cooperatives in utilities. RCA will look to “reduce all possible transactions costs for primary members”, make cooperatives less reliant on outside funding. More funding and personnel for research and capacity development is foreseen. Dormant cooperatives will be surveyed for policy action. It calls to set clearly the RCA role in terms of cooperative development, promotion, capacity building and operational support (Rwanda Cooperative Agency, 2020a, p. 15). The new Cooperative Law was published on 14 May 2021. RCA powers include provisionally suspending “leaders and employees” and calling for a cooperative general assembly after that, as well as applying Imihigo or performance contracts to cooperatives’ members. Perhaps most important is the change in the definition of what a cooperative is. Table 2 compares the concept of cooperative under the 2007 and the 2021 Laws, specifically the definition and the role of local authorities in their general assembly.

**Table 2 Legal definition of cooperatives in Rwanda**

<p>Law N° 50/2007 of 18/09/2007                  Determinind the establishment, organization and functioning of cooperative organizations in Rwanda. (Rwanda Cooperative Law 50/2007)</p>	<p>Law N° 024/2021 of 27/04/2021 Law governing cooperatives in Rwanda (Rwanda Cooperative Agency, 2021)</p>
<p>Article one: The purpose of this law                  This Law determines the establishment, Organization and functioning of Cooperative Organizations.                  Article 2: Cooperative Values                  The Cooperative Organizations referred to in this law are associations that are physical or moral persons in nature with legal personality, based on the values of promoting their members in accordance with principles of mutual responsibility and self help, democracy, equity and equal participation to the assets of a Cooperative Organization                  Sub section 2 : The Role of Local Authorities § 1. At the Sector level. Article 21: Role of Sector level’s Authorities in delivering legal registration                  Those willing to form a Cooperative Organization the legal personality, he or she shall return to the leaders of the Cooperative Organization the file through the Executive Secretary of the Sector notifying them the justification for the refusal of submission of their file and the required formalities to complete it in order to be granted the legal personality. He or she shall notify such decision to the Organ responsible for the development of Cooperative Organizations.</p>	<p>Chapter one General Provisions                  Article 2: Definitions                  4° primary cooperative: a first-tier cooperative composed of individuals, an enterprise, organ or organisation with legal personality that have joined together voluntarily to carry out together activities aimed at ensuring their own development according to the principles governing cooperatives;                  5° cooperative: a primary cooperative, a union, federation or confederation;                  6° person: an individual or a cooperative, enterprise, organ or organisation with legal personality;                  Article 32: Convening a General Assembly meeting.                  ...Local authorities in charge of the development of cooperatives and the organs of the cooperative umbrella organisations the cooperative is affiliated to, must be invited to a General Assembly meeting in which they play an advisory role, but do not take part in decision-making or vote</p>

In the 2007 Law, cooperatives are not acknowledged as enterprises, although they are and should be so, as per the international cooperative movement definition by ICA<sup>12</sup>; and the ILO 193 Recommendation on Cooperatives. But this is not unique to Rwanda. The rest of the text correctly treats cooperatives as physical or moral persons legally registered. The text of the law includes several mentions to ‘promotion’ of cooperatives or cooperative members.

The 2021 Law is quite different, with a focus on profit-making value chains and investment partnerships and leaves aside the definition of cooperative in the previous 2007 Law. The text is not discursive. Cooperatives receive no definition as such, but a list of possible components. First-tier cooperatives can have enterprises as members with an equal vote to individuals. Profit is mentioned several times. The 2007 Law mentions ‘profitable’ which is correct and makes sense, the idea being to be successful, in the black, provides benefits responding to members’ needs and aspirations. Cooperatives values are not mentioned in the 2021 Law. The notion of ‘person’ is applied to anything: people, enterprises, organs, and organizations. Organs and organizations are not further specified. In fact, there are cooperatives of SMEs, such as in Germany or France, but they are all SMEs from the start.

Cooperatives can join or form unions, federations and confederations to promote partnerships and enter value chains, provided their profit-making plans are approved by the RCA. The role of local authorities is strongly reinforced and must be invited to take part in cooperatives’ general assemblies or meetings, whereas in the previous law they had a role of local registrar. It is not unique to Rwanda that local authorities may take part in some type of cooperatives, such as multistakeholder cooperatives like the SCIC in France<sup>13</sup> or the Italian *Consorzi* of social cooperatives<sup>14</sup>. But this perspective is not part of the 2021 law. The idea of consortium or cooperative group could be fundamental to reestablish the correct definition of cooperative under the law. This would however require dialogue, training and education of national policy makers, officers and local authorities, and not only cooperative members. In terms of SACCOs and merging, one wonders how the two distinct models of cooperative bank (assuming it is a cooperative that matches the international definition) and SACCOs will function after a merger. These two are different models. Cooperative banks are essential lenders to the real economy and local enterprises, while SACCOs are credit saving local collectives that cater to individuals and families who are direct members.

Another strategic government policy has been regionalism or regional integration. Cooperatives in the region have actively participated in consultations and contributing to the East African Community Cooperatives Bill 2014, which still awaits to be approved

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<sup>12</sup> See <https://www.ica.coop/en/cooperatives/what-is-a-cooperative>

<sup>13</sup> see <https://www.les-scic.coop/collectivite>

<sup>14</sup> see <https://www.padovanet.it/informazione/cooperative-sociali-di-tipo-b-e-loro-consorzi-procedure-di-convenzionamento-diretto>

at government level. This bill would help cooperatives reach a level playing field on a par with other economic actors and develop the necessary capabilities to continue contributing to national development.

Public investments had been the main driver of growth since the beginning of the 21<sup>st</sup> century. External financing through grants, concessional and non-concessional borrowing played an important role in financing of public investments (World Bank, 2021 October 7). But as donors' aid programmes has shifted to partnerships, the search for investment in energy and roads becomes pressing, and integration into global supply chains is promoted as the solution, public officers who have been trained in finance abroad have ample incentives to change cooperative policy.

Since 2005 and in view of Vision 2020, the Rwandan national government had the view that, like in the post-war period in Europe, cooperatives could be key to national development in peace.<sup>15</sup> Vision 2020 Umurenge (meaning sector) Programme -VUP- had donor support in 2008, with a focus on public works; unconditional direct support for the disabled and the promotion of financial literacy and credit to persons. In Lavers' analysis of Vision 2020, the VUP was the national elite commitment and response to concerns about high poverty rates and inequality, that could hinder stability. It had a double track of sorts: *“the programme design was approved by the government based on the programme's potential to contribute to a range of productive objectives in addition to the provision of assistance to the poorest. These multiple objectives have proven to be a recurrent challenge in programme implementation, with targets for infrastructure development, in particular, in tension with those of poverty reduction (Lavers, 2016)”* In Vision 2050, cooperatives are present but their treatment and conceptualisation appears deeply changed, with the balance tilting towards large infrastructure projects and FDI.

#### **4. Materials and methods**

This is a multi-unit qualitative case study (Yin, 2018) of cooperatives in Rwanda after the genocide. Three types of cooperatives were selected in particular after a study of the literature: 1) women's cooperatives or cooperatives led by women, 2) cooperatives linked to nature such as natural parks and tourism, and 3) cooperatives exporting crops that are key to the country: coffee and tea. The last two were selected not only because they are key export products, but also because of the link between coffee, land, and the conditions leading to genocide. Women-led cooperatives were important because of their importance in both peacebuilding and the rebuilding the country (Bayisenge, 2015, pp. 3-4,24, 47; Musahara, 2012, p.6). Kadende-Kaiser (2012) makes a similar argument for Burundi. Crafts and arts, tourism and transportation responded to other criteria: these are industries without homestacks that have become significant contributors to GDP and employment. In the case of Rwanda, transport and logistics are essential to competitiveness and African regional integration.

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<sup>15</sup> Interview 2018 with NCCR Chairman Katawarba, Kigali. He was replaced after the new RCA Director came in 2018.

In 2018, in Kigali, interviews were held with members of the ceramics cooperative of Twa, transport cooperatives CODACE and ATAK, long transport and logistics cooperative COCTRAMAVK, construction cooperative ADARWA, the women cooperative in crafts AMAHORO AVA HEJURU. This was followed by visits and interviews in Nyaguru and Nyamagabe, the tea cooperative COTHENYA, the coffee cooperative NYAMINGA, the tea growers cooperative KOBACYAMU. In Huye, the coffee growers cooperative MARABA ABAHUZAMUGAMBI. In Musanze, the artisans cooperative COOPAVU, and COOJAP, and the eco-tourism cooperatives. Interviews followed a semi-structured questionnaire applied in group settings. Cooperatives were visited in the following regions of the country: Kigali, Gasabo, Kicukiro, Huye, Nyaguru, Nyamagabe and Musanze. In addition, the Rwanda National Confederation of Cooperatives (NCCR) and the Rwanda Cooperative Agency were interviewed. The questionnaire stated that the focus was on cooperatives contribution to sustainable development with social cohesion, and for laying the peaceful foundations of living together, if any. It was also stated that it was believed that cooperatives also depended on the support from others such as cooperative confederations, federations, the cooperative movement at large, the government and other partnerships to build on their potential and deliver successful, inclusive and sustainable growth. Besides, it was explained that there was an interest in understanding how cooperatives may be part of a process of change. Questions to the Confederations discussed they work they did or planned, studies on cooperatives, data, potential contribution to local development, SDGs, and the history of cooperatives including before and after the Genocide. Did cooperatives offer a difference compared to other types of organizations or enterprises? Did they contribute to the community and how? What were their relations with the Government, the cooperative movement worldwide, and other organizations? Questions to cooperative members and managers dealt with their work, the organization of their routines, the history of their cooperative including solving conflicts and challenges, all types of contributions to the members including income generation, learning skills, cooperative rules and meetings, mediation in disputes or conflicts, savings, resilience to natural, social and economic disasters, women participation and initiatives, if there was any type of celebration and solidarity among them and how could this be explained, whether members paid the same sum or different sums in anything including logistics and transportation and why, if they had changed or innovated in anything. The NCCR secretary was present and kindly helped in translation between English and Kinyarwanda. Some interviews were in both English and French and cooperative members also contributed in translating what they were talking about.

Several areas and sites of each cooperative were visited. Besides, public authorities and representatives of cooperatives at the national level were interviewed. Finally, photographs and other material was collected. Some photographs are included at the end.

The methodology follows a constructivist grounded theory approach (Strauss, 1987; Corbin and Strauss, 2015) and is based on in-depth interviews and data collection during the two field research trips carried out in 2018 and 2019. The first one lasted a month and

the choice of areas was related to those areas who had suffered the most during the genocide. The second one was shorter, visiting some of the same cooperatives, others came specifically to Kigali to meet, sharing with them observations through an open dialogue, listening to new developments. This study has thus the limitations not only of time but timing, as the new 2021 law and policy changes in course call for further research. Atlasti was used in the analysis, and after coding, the major code was ‘reflexive agency’ as a type of agency that helps reconcile diverse requirements and sometimes conflicting demands in a peaceful cooperative manner with the goal of community social cohesion with both local and national development. Another key code was ‘impact multiplicity’ where cooperatives contribution was multiple and interactive, showing a learning process.

Ethical considerations in research on peacebuilding in post-conflict settings were omnipresent due to the trauma still present and because the concept of peace can be interpreted in various ways. First, of all Conclusions are based on the cooperatives visited with the goal of understanding how they contributed to both peaceful and sustainable development, together with factors that may be conducive or restrictive, and to grasp to which extent their contribution may be the result of public policy, and whether this potential contribution remains, expands or phases out after a certain period.

Three types of challenges are worth mentioning: discussing certain issues such as members in cooperatives and whether they belong to any particular group to be able to discuss how cooperatives help in reconciliation. There are several PhD and MA theses on this aspect, but this was explicit in the questionnaire. Interviewees could naturally explain the situation and some said they had members of both groups. A second challenge concerning research on peace generally, when the first and dominant idea of peace is security or so-called ‘negative peace’. To explain ‘positive peace’ at the beginning of any meeting was out of the question, because it would have overdetermined the discussion. The solution was to focus on the elements of Galtung’s peace formula, contributions to equity, equality, empathy, and harmonious resolution of conflicts, including mediation, facilitation, finding solutions in cooperation, and the types of contributions to development they felt were important to them. In addition, the dialogue could include mentioning challenges and how they solved them, and whether they had projects for the future.

## **5. Main findings: Impact multiplicity**

### **5.1. Cooperatives contribution to development**

In this section evidence is drawn from the interviews and discussions undertaken during the visits to the cooperatives mentioned in the section on Methodology. There were multiple simultaneous types of contributions to a peaceful living with development among which the following:



### 5.1.1. Cooperative Organization and Identity

Cooperatives that existed before the genocide were few and disappeared. The *banques populaires*<sup>16</sup> gave way to the SACCOs that helped small farmers or growers and villagers save for their needs and those of their families.

Except for a few such as coffee cooperatives, most cooperatives were formed following the national policy and legal framework about 10 years after the Genocide once people had regained some trust and experienced in working together in associations. According to interviews, such a process facilitated their conversion into cooperatives: “*First of all, we were an association called Athenya since 2001. In 2005, we got legal personality. Secondly, with the national cooperative policy, we transformed into Cothenya, with legal personality in 2010.*”

Cooperative members were proud economic leaders in that they were leading exporters and growers in the tea and coffee sectors. Small growers were members of tea cooperatives in the vast majority, but only by 50% in coffee, working with the Rwanda National Agriculture Export Board (2018). In tea, “around 69% acreage is under growers’ cooperatives that are into two categories cooperatives with consolidated tea blocks” Washing stations were being built and enlarged. A key problem was that coffee growers found some cooperatives’ processing plants too small and resorting to middlemen to sell part of the produce. Larger cooperatives had built different channels to sell in the local and national market on the one hand and in the international market on the other. In 2021, as the policy framework seems to veer towards profit-making partnerships, the recent initiative of a large fertilizer plant shows that the government concerns about rising import costs and productivity, but also recognize that financial pressures will be borne by small farmers and growers.<sup>17</sup>

Many cooperatives organized along sectoral lines. Crafts were the most difficult of all to organize due to this type of creative activity. In one case, the cooperative had a wonderful location and house, but it was not working fully. Ready-organized tours bypassed them early in the morning and returned with tired tourists directly to their hotels. Cooperative members talked of having had the support of a lady to export fair trade products, but this network was not active. Many cooperative members were

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<sup>16</sup> These were cooperative banking societies operating before the Genocide. The first one was created in 1975. In 1986, they set up a Union. In 2018, this Union was turned into a commercial bank and in 2021 it was bought by KCB Kenya (Njorogue, 2021).

<sup>17</sup> See Edwin Ashimwe, 2021 December 21, The New Times, “The development follows a joint venture partnership reached between Rwanda Fertiliser Company Ltd (RFC) and OCP Africa (OCP), a subsidiary of the Moroccan public-private company OCP Group, one of the leading phosphates producers in Africa... “The issue remains to strategically subsidize or find financial mechanisms for affordability of the farmers,” said Bucagu [Deputy Director General of Rwanda Agriculture Board], adding, “Incentives will be needed.”, <https://www.newtimes.co.rw/news/fertiliser-plant-be-complete-next-year>

therefore working their agricultural plots and had taken other jobs, while a few would maintain open the craft cooperative. Ideas such as receiving Rwandan schools to teach them about the natural park, or national crafts, had not come to their mind.

### **5.1.2. Education and Training**

Education and training were both a need and request. University education on cooperatives did exist in a limited fashion. There were a few courses at two smaller universities but not at the University of Kigali or in business courses. NCCR personnel was limited and constantly travelling to meet cooperatives needs. RCA was also considering more personnel. On the other hand, cooperatives looked for support from others such as international non-profits, fair trade networks, universities in the USA, cooperative organizations in Germany, to name a few. Cooperatives had accountants, agronomists, trainers in their sectoral activity, licensed experts in customs and logistics.

### **5.1.3. Health and Nutrition**

In health and nutrition, cooperatives had a vital role in various aspects such as encouraging vaccination, in initiatives against malaria.

*“Every cooperative contributes to the Mutuelles de Sante, or health mutuals... There is also a mutual insurance that can be easily paid in cooperatives, but not all members have this“. Cooperatives have also been very active to achieve Zero hunger, as a vehicle against hunger as explained: “There was no rice in the country before, we imported 100 %. Now about 60% of our total consumption is produced by cooperatives... In maize, there was only small amounts within plantations. Now it is widely produced by cooperatives”*

### **5.1.4. Cooperatives and Investment**

Cooperative members described being recipient of programs providing small livestock, but also donating (paying previously for the animals) or helping distribute the animals within the villages or communities. Cooperatives were expected to invest in irrigation equipment, tackle drought-induced food shortages, rebuild small roads and bridges after the havoc of the rainy seasons. They were receiving government-backed training in post-harvest handling and managing produce. The Government subsidised irrigation equipment by up to 50 per cent of the cost.<sup>18</sup> Interviews took place before the COVID-19 pandemic so they could not cover this situation.

### **5.1.5. Cooperatives and Solar Energy**

In terms of solar energy, in the rural areas, cooperatives paid for the farmers first, and the farmers paid them in instalments.

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<sup>18</sup> See for example, Emmanuel Ntirenganya, New Times Today 18 October 2019  
<https://www.newtimes.co.rw/news/rwanda-targets-zero-hunger-next-six-years>

### **5.1.6. Cooperatives and Women Leadership and Empowerment**

Concerning women's leadership and empowerment, like in Parliament, cooperatives were required to give 30% seats to women in elections and seats. Many women survivors became members of cooperatives after the Genocide. Women have been vital in reviving agricultural activities, they used their knowledge in crafts to rebuild livelihoods and they had a key role in the Gacaca courts serving as presidents, but they also worked as taxi drivers and mechanics. *"A vast network of women's groups such as... cooperative societies at the grassroots level played a pivotal role in providing socio-economic empowerment initiatives... used an entry point for peacebuilding and reconciliation in Rwanda."* (Issifu, 2015) There were women leading cooperatives, in crafts and in the tea sector. Women became members in logistics and trucks if their husbands passed away, even if they did not drive the trucks themselves. In that way, they could maintain their families.

### **5.1.7. Cooperatives and Voluntary Participation in Rebuilding**

Voluntary contributions and participation in the Umuganda: cooperative members participated in the Umuganda Community service day to rebuild the country. In interviews, depending on their financial capacity and working tools, they also donated sums of money, bricks and building materials, they used their trucks to take construction materials to build/ rebuild clinics and schools. In 2006, Imihigo (known also as performance contracts) was introduced to the cooperatives.

### **5.1.8. Cooperatives and the Coffee Sector**

The coffee was strongly rebuilt with the efforts of cooperative members. Maraba is the district with the highest percentage of victims during the genocide. The name of the cooperative Abahuzamugambi means "those who have a common goal", and some members were refugees returning home. Their plants are of the Arabica Bourbon variety. During the interview, they explained that: *"The Maraba coffee cooperative started as registered cooperative in 2002 with 37 members and were 1340 in 2018. It started with one washing station and grew up to 5 in different areas, with two in Maraba and all producing cherry beans. In the place of the visit there was the parchment station: It all started after the genocide, in 1998. 37 people came together in an association, both men and women. They were advised by the Maraba Sector to put up this station. USAID supported us, the Maraba government and a US person from the Pearl Project. You can see their photos up in front of us on the wall. Plus the University of Uganda and the University of Michigan. In 2002 the Government and the Pearl Project advised us to turn into a cooperative. This helped in constructing the station"*.

Was there any difference from being an association? Did a cooperative make sense?

*"As association, members had no ownership and no profit. With the cooperative, member-owners earn money, get their coffee washed for free, better quality and at higher price with the conditions to get marketing. With*

*the association, members continued to produce ordinary coffee, which was only local and for the the local market. With the cooperative, the price we get is higher, and we got export markets. From 1000 it went to 6000 FRW/KG.”*

Approximately 70 % of surplus returns to cooperative members, and the rest is reinvested in the cooperative. The coffee was exported to companies in the US and the UK. Exports were supported by the Pearl Project. Now they have marketing national and foreign channels.

In 2007, the cooperative MARABA established a cooperative group called Rwashoscco<sup>19</sup> with five other cooperatives: *“With cooperative shares in it, equal shares and equal profits. We meet with tourists. And it helps us with markets.”* At the place, there was a large room for tasting and tourists, like a bar of coffee.

The National Agricultural Export Body have tasters coming on site to certify them for fair trade, and they export through the National agricultural Export Board.

*“We are in discussions with Rainforest Alliance to work with them. We have had contracts with fair trade for specific quantities, and if more is produced then we sell outside these agreements. Yet, fair trade is the one helping us with certainty in markets, pricing, exports, which gives us resilience. Better to work with cooperatives although fair trade can work with associations. This is because cooperatives are registered and have legal identity.”*

What are your social contributions to community as cooperatives?

*“We do community work, individually. We give members loans through small groups (money every week) from January to July and after the season and harvest they pay back. The loans are without interest. The next 6 months, if they want a loan, they are charged with interest of 12%. We divide into two halves.*

*We have small groups’ savings: 32 groups with 36 people each. When each groups meet in person they help one member at a time. The starting sum is 500 FRW and goes according to their capacity of contribution. We are thinking of having our own SACCO right now. We have enough capital now. We would prefer it rather than taking our money elsewhere to other SACCOs.*

*Also as cooperative, in Huye, we are helping pay health insurance, the mutuelles de sante of those who cannot pay, and we help keeping the memory of genocide, We continue to help the survivors of genocide, and we give money to pay for the events too. We have helped in repairing small bridges, connecting sectors, if they are destroyed by rainfall, also with money to sector authorities and the sector pay for the works. In election times, we donate to buy the election boxes, the decorations, the preparations for the whole area where people vote. For the cooperative meetings, we do meet in groups every month and make sure that all groups have met by the end of the month. Our general assembly meetings takes*

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<sup>19</sup> <http://www.rwashoscco.com/>

*place once per year, according to law. We also meet twice a year for the Board meetings, which is formed from different zones to a total of five. We are encouraging youth to join in as mothers and fathers get old, but I do not exactly how many youth are getting involved.”*

Not only cooperatives restart the economy post-crisis, but they continue to sustain rebuilding and innovate in products, outcomes and solutions for their cooperative members and communities. The cooperative MARABA had a vision of the future and was open for development partners with values close to theirs. Not only they were attentive to equality but also to empathy and solidarity in their actions, establishing routines and practices that could sustain the times.

The Nyaminga Cooperative of Coffee Growers works in the Nyaguru District. They got advice to register as cooperative from the RCA and to put up a washing factory. They got government land and asked the National Agricultural Body for a loan and mortgage. Members gave their houses as collateral. There were five members in the Board as per the law. Three members in the Supervisory committee. There four staff: an accountant, a manager, two agronomists. From 6am to 12 pm they worked in the field in their plots, then went home. The groups explained in the interview and while touring the washing station that: *“On the part of the cooperative, we have four fields and a station that is important enough to buy from other producers”*. The Nyaminga Cooperative works with the NGO Sustainable Harvest and Women for Women. In 2014, the President of the Cooperative looked for help from NGOs. Women for Women works with women aged from 18 to 50 years old, in groups in a list, to receive training on how to manage their money. The latter not only related to the cooperative but also to deal with outsiders.

The Cooperative Chairwoman expressed their interest in nature and sustainability: *“We tried first as bee keepers, but stopped because we failed. Bees are killed by pesticides. After came Sustainable Harvest, who trained us in groups and that led to an increase in the number of cooperative members. The first years we made money and one of the first things we did was to buy us all a dress. After that, we had trouble with management and we sacked the manager. Our new staff comes from the local university, “to help the community and the country”*. The women added *“they help us with quality and knowledge”*. The cooperative put out an open call after designing an exam and its objectives with the help of the NGO Sustainable Harvest. With an open call, they came and passed an examination. The women had bought the dress to be decent and for city functions: *“it gave us pride. For some it was the first time. With the 20 million we also bought small goats for each member each 20000 RWF each. From the rest, we built this building you see. As a cooperative, we develop quicker and keep our environment safe, all trees, water, people.”*

A woman member wants to give her testimony: *“I was a new member after receiving training from Women for Women and Sustainable Harvest, I joined the cooperative in 2017. Having education is the most important aspect for me and my children. Then to have health insurance. I can help my husband. Being with other people, I am not only at home all the time. I can get other things, clothes. I get to know now what happens outside! In the past, only men cultivated coffee. Now, I know about it and get profit from it”*

### 5.1.9. Equality and Livelihoods

Interviewees expressed that they were heard by others, felt included, sometimes celebrated by the community, the local authority, or the national government, after the genocide but in particular since 2005. They described their own cooperatives as contributing to equality, livelihoods and reconciliation, and eventual conflicts dealt through dialogue.

*“You cannot explain it [the genocide], the country ‘had no image’, every person was miserable, full of hatred, fear, hopeless, there was suicide, revenge. Being in a cooperative, it means you understand me or I understand you. We talk, we agree, at the end of the day, we come to a consensus. The only solution is to work together. You’ll see the difference now, we have values, lots of programs with initiatives on poverty, reconciliation” ... At the national level, there is a cooperative learning platform, and there are consultative meetings. In 2014, President Kagame met cooperatives at the national stadium with about 3000 people. It was a discourse that gives us voice... Since 2015, we have a cooperative week but in 2018, we have a cooperative month and we have joined the International Cooperative Day”.*

Rwandan interviewees also shared personal stories of how cooperatives helped them survive, overcome trauma, build solidarity, and reconcile with themselves, others, and society in general. Koperative Amahoro Ava Hejuru in Kigali was founded in 2004 as an association by women living in difficult situations, including being survivors of the Genocide. Amahoro means peace. During the interview<sup>20</sup> they explained:

*“We had no internal rules to bind us, no strategic plan, we worked in a disorganized environment. After a while, we were able to generate revenues, we opted to apply to be recognized as cooperative, and in 2009 we were granted a registration certificate as cooperative. Some of us are widows and orphans, we used to be street vendors, builders, helpers, we could also get small orders in the market for sewing clothes. We started working together and we shared ideas and strength and we ended up starting to sew different products and when people liked our products they helped us in getting many clients. We were introduced to different hotels and we used to take our products for that we get many clients which enabled us to expand our project, we started with one product but we are able to produce over 70 different products. When the Rwandan Government introduced the program of cooperatives we realized that it’s a good program to develop ourselves and be able to get out of poverty. We increased our skills that enabled us to have creativity in making different products in fabric clothes.”*

The women of Amahoro Ava Hejuru had made a large quilt that was hanging on the wall. The quilt showed the country with red lines and a cross, and women hands exchanging a Peace basket at the top and a drinking jug at the bottom:

*“The quilt tells the story of our lives, families and the hope for our country Rwanda. Our peace was stolen by the Genocide. The country was torn apart and our lives too. You can see the country that was*

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<sup>20</sup> Interview 21 June 2018 with all members of Amahoro Ava Hejuru.

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*torn apart is now joined together again. At Amahoro, we have come together from different backgrounds and we joined together. This quilt is part of our true peace, we share our lives together as we sew together, it is like we are drinking juice from the same pot. We have found the source of higher peace and this is why a lady is dancing with joy and pointing to the cross.”*

With their headquarters in Gikondo, the work of sewing was used to get out of poverty but they had other projects and initiatives:

*“We have a vision of expanding our sewing activities to other places and helping our fellow women by teaching them so that they are also able to get out of poverty. We joined our savings and bought ourselves a house one after the other. Now we send our children to school and even the university. We also helped one of us get married, because she was expelled from her family after her father remarried, and could not receive the dowry. One of us adopted her, and her aspiring fiance went to meet her there. It was good to see the happy ending.”*

In this case, there is valorization not only of productive life but also of reproductive life and the wider care. Their resilience gave way to solidarity, their inter-personal ties led way to the possibility of marriage. Their business showed signs of sustainability as they had completed paying the credit they had got for their large cooperative house. They paid for their dwellings and children needs. The cooperative offered space to deal better with the trauma of being a survivor and they had future projects. The bearing of trauma causes a rupture (Edkins, 2006) from settled understandings that were previously considered commonsense. This shattering provides an openness to ‘reflexive agency’ through cooperation and mutual help.

## **6. Discussion on Cooperatives, reflexive agency and positive peace**

Socializing by way of reflexive agency can further the sense of belonging through material and governance practices. Cooperatives may be a mobilizing vector with the potential of aligning for change and transformation from a past crucial event onto a resilient present and hopeful future. Land and Roessl provide similar evidence for Austria and Germany (Lang & Rößl, 2011). Cooperative members see themselves as part of and value of a common shared initiative. They express a degree of interpretive competence in identifying and analysis what was a common good to them. Such a collective agency can be identified as reflexive agency. Besides, in order to re-act to problems and challenges, they based their actions on modern forms of solidarity compatible with individual freedoms and self-realization (Rehg, 2007)

This notion would call into question the idea that, in building sustainable peace and development, top-down policy implementation is sufficient. Local stakeholders’ reflexive agency necessary to their achievement, provided that collective actors such as cooperatives are appropriately supported and their business model and identity respected.

Explanations given as to why they felt better or more secure being owner and member of cooperatives, responses ranged from being able to establish trade and market relations, access credit, being able to sign transactions in terms of buying land and property, raise savings, and felt empowered generally. They were proud to have established cooperative enterprises and expressed that their contributions to society and economy were made clearer in that way, through a cooperative. Responses linked up positive peace to development with equality and equity. Reflexive agency takes place through reflexivity modes (Archer, 2013). Throughout interviews and dialogue, communicative, autonomous, and meta-reflexive modes, explained in Section 2, appeared in a non-linear continuum of shared experience. In terms of requiring confirmation by others or communicative reflexivity, various interviewees expressed that, on the one hand, they wanted to abide by the law, while on the other, they gave evidence of increasing reflexive autonomy leading to action as expressed in common points: as cooperative members they could register nationally and thus be able to trade and work across the country and abroad; they all had to work while as associations only the leaders got involved and benefited from the association's network. Members were now able to save capital, individually and together in the cooperative, which enabled them to invest or try new projects, start new activities and/ or scale up what they already had, while before it was not possible. However, there were also expressions of challenges, some failures in specific initiatives and actions, either due to climate change, to unsustainable practices in agriculture or to mismanagement. There was awareness and expressed will to change, and also explained in detail when they had already taken action as a cooperative to deal with it.

Women also expressed a feeling of empowerment and safety regarding their work, their children, their living conditions, even their capacity to buy a decent dress. In all cases, cooperatives continue to work with NGOs including international ones, and, in 2018, they were looking to further collaboration and projects. They all brought up that they were paying taxes which supported the country's reconstruction, while previously as associations they did not. In fact, Italian social cooperatives underwent a similar learning process, from being associations and turning to social cooperatives in the 1980s to make their work and mission stand the time.

## **7. Conclusions**

### **7.1. Concluding remarks**

When looking at Rwanda's programmes by the national government as well as by supporting international organisations, cooperatives appear to have had a prominent role in a variety of activities and economic sectors (e.g. in coffee, Boudreaux, 2011; in maize, Ngaboyisonga et al., 2011; in rice, Ngango, 2012; in milk, Kayitare and Mutesi 2018; in tourism Nyungwe Forest National Park (n.d.)). Their rapid growth offers a vantage point to observe the potential contributions of cooperatives. Cooperatives have been mainly expected to be a vehicle for inclusiveness and effectiveness in terms of economic development and



agricultural performance, but not only. Cooperatives have been fundamental in providing a safe space, building trust, learning how to live and work together again, build savings, housing, invested and donated materials, money, and work to build or rebuild schools, clinics, bridges, or roads during or after the rainy season, have been vehicles for renewable energy, nutrition programmes, health, to a name a few.

Cooperatives showed to be successful in finding solutions through networks, solidarity, markets, innovation, mediation, and strength through equality, mutuality, and reciprocity. The main findings show that cooperatives offer the space and structure to build reflexive agency through collective action. Examples and evidence of their efforts indicate a long-term path towards fairness and equity. Reflexivity was centred not only on achieving specific goals as stated in policy, but also on which were the most appropriate ways and means to do so, their cooperative reflexivity evolving as they worked through the normative connotations and value of their actions. Together, they were taking care of themselves and their families, their community, their district and country, and the relations they were building among themselves and with nature.

Data analysis identified two main Archer (2013) positive modes: a) communicative requiring confirmation by others, and b) autonomous self-grounded leading to action. Held (1992) beliefs about cooperatives stated in Section 2 seem fine but, instead of being free from any direct interference reflexive agency shows that cooperatives are able to build collective agency through a learning process bridging needs and constraints, including from other organizations and institutions.

## **7.2. Recommendations from the Study and Suggestions for Future Research**

The timing of policy choices is decisive because the world constantly changes. Applying top-down neoliberal policies from the late 20<sup>th</sup> century to human-made crises of the 21<sup>st</sup> century setting off incalculable risk' may not work. Supply chains as well as economic globalization are under heavy strain in COVID-19 times. Mobility, transportation and logistics, and light industries such as tourism and services may be suddenly heavily restricted. Just like the proposal of avoiding smokestack industries (Newman et al., 2016), development choices may be reshaped, specially when national preference, industrial policy and re-shoring of enterprises are back on the agenda in developed countries

There are models of cooperatives that appear to be unknown to the country's policy makers, which may be of help to respond to their country's needs. This would require visiting, learning and listening to many other cooperatives in the world and not just a few. Based on in-depth interviews on the one hand, and data collection on the other, cooperatives seem to enable reflexive agency, while engaging in advocacy and reconstructing capital in various forms. It is fundamental that the cooperative identity is respected and not to destabilize large parts of the population who are cooperative members, especially in the difficult times of a pandemic and post-pandemic. Cooperatives are enterprises with a well-defined but flexible business model, and until 2019, they and their members were able to

contribute with their efforts to rebuild the country's economy and society from a positive peace perspective. Their model deserves further research, in particular regarding their impact multiplicity. Future research should avoid taking a unilinear or unidimensional focus. New national policy developments hint at the continuing dichotomy in economic thinking between national needs of development for all, facing poverty and inequality, on the one hand, and of attracting investment into large infrastructure investments on the other. This also raises concerns as to the level of knowledge of cooperatives by the younger policy officials. Understanding better the evolution of the country's younger elite commitment (Rehg, 2007) to development with equality for a peaceful living economy can be part of further research. The practical implications for society of this study are that such a peacebuilding process, locally grounded, takes time but is beneficial not only for the short but also for the long-term. Therefore, policy frameworks need to take the evidence into account, not only quantitative but also qualitative data to grasp the process of change, and include in their policy plans appropriate support to cooperatives.

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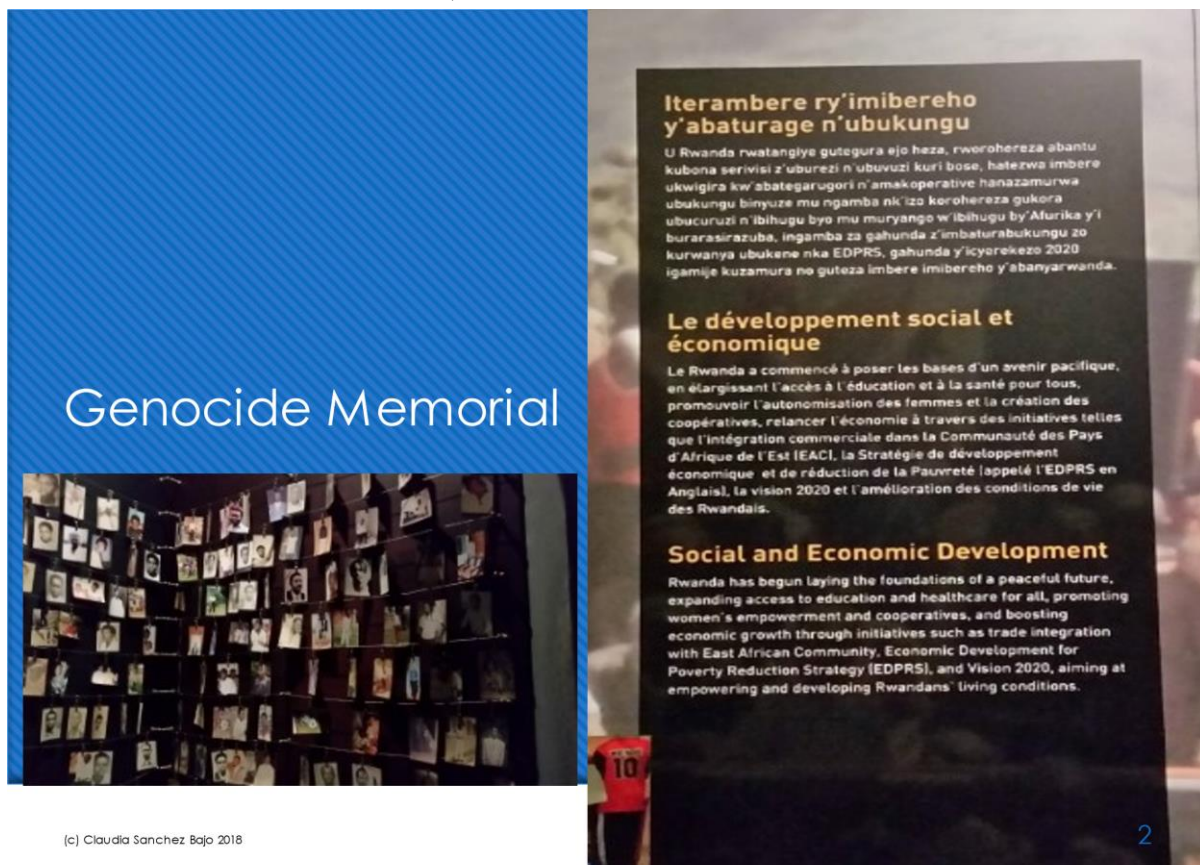
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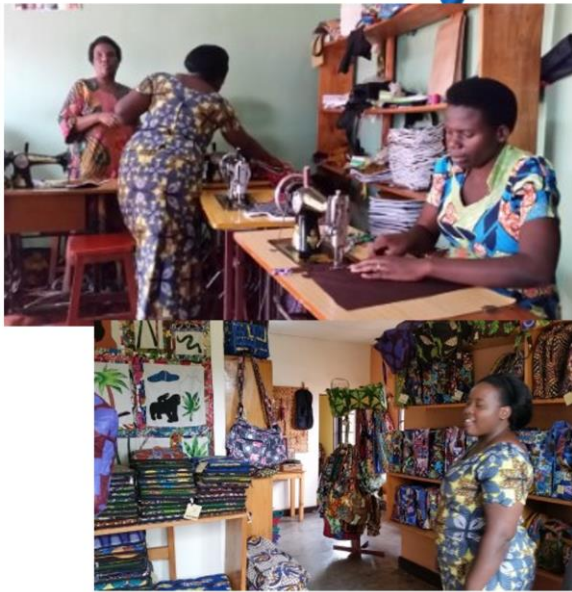
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## Dimensions of peacebuilding AMAHORO COOPERATIVE



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- Resilience – Solidarity
- Personal - Marriage
- Business – Sustainability
- Dwelling and housing
- Family – Children
- Survivors – Trauma
- Future - Projects



## Dimensions of peacebuilding MARABA COOPERATIVE

- Credit without usury
- Partnerships – solidarity
- Exports Quality –Diversified marketing
- Small Producers - Inclusion





# **Alternative Financial Inclusion and Women Empowerment in the Covidian Era: Evidence from Rural Women Entrepreneur in ROSCA in South-Western Nigeria**

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## **Abstract**

Informal credit arrangements create potential financial succor for businesses, mainly small-scale enterprises, as most micro-businesses bear the brunt of low financial inclusion because of their informal existence. Hence, the study seeks to answer two central questions: is ROSCA a sustainable alternative financial inclusion option for women entrepreneurs' empowerment in the Covidian era?; what are the challenges facing the successful operationalization of this form of cooperative mechanism in the rural setting in Nigeria? The study is anchored on the collective action approach. The study adopted a mixed-method design using econometric tools (Ordered generalized logistics regression and Variance covariance estimate least square regression after a sum approach was used to extract a composite score for the outcome variable) and statistical techniques (tables, and pair-wise correlation) were employed to analyze the quantitative part while thematic analysis was adopted for the qualitative section. Results show that most of the women surveyed used their ROSCA money for capital accumulation and other business expansion purposes. Also, ROSCA has a positive and significant effect on the performance of the business of these rural women. These results were confirmed with the outcome of the qualitative analysis, which further underscores the role of ROSCA in financially empowering women in Nigeria. However, challenges such as default in loan repayment by members and occasional fund misappropriation by some leaders were prevalent.

**Keywords: ROSCA, rural women, women empowerment, credit, Covidian era**

## **1. Introduction**

Informal credit arrangements create potential financial succour for businesses, mainly small-scale enterprises, as most micro-businesses bear the brunt of low financial inclusion due to their informal existence and weak business environment (Lakuma, Marty & Muhumuza, 2019). Economic conditions such as inadequate infrastructures, poor finance, and some other factors exacerbate the poor growth of these small-scale enterprises in Sub-Saharan Africa, especially in Nigeria, with substantial implications for women entrepreneurs'

empowerment (Lakuma et al., 2019). Global Entrepreneurship Monitor (GEM) 2020 report shows more women entrepreneurs in Nigeria than even their male counterparts. However, the women in Nigeria generally are not only socio-culturally vulnerable but also economically limited in access to economic opportunities (UN-Women,2020); a condition further aggravated by the COVID-19 pandemic and rural socio-economic context (The Fate Institute,2021). The socio-economic vulnerability of women further strengthens the debate about women's social and financial empowerment, especially about engaging women directly in the empowerment process given institutional bottlenecks in financial access.

To this end, Niyonkuru & Barrett (2021) observed that working with critical consciousness is central to expanding the possibility horizons for women and realizing a transformative impact on access to income and autonomy in expenditure. However, previous authors (e.g. Bat liwala, 2007; Kabeer, 1999; Rowlands, 1997) note that women need to take up the mantle of empowerment themselves and for themselves, arguing that women can be supported through policy, but empowerment cannot be done for them. This would not be considered as taking up power in a negative light but 'power for' positive social change. While agreeing with other authors, Cornwall (2016) argued that the movement towards women driving empowerment for themselves can only be achieved if they begin thinking differently about themselves; believe in themselves; consider the major role they play within the nation, communities and households; their relationships and their visions. This raises greater interest in generating more insight into how a sustainable empowerment scheme that is self-controlled like Rotating Savings Credit Association (ROSCA) can augment this economically marginalized group (Niyonkuru & Barrett,2021). ROSCA has been seen as secretive earnings for women (Sedai,Vasudevan & Pena,2021) and creates a strong link to the growth of women-owned micro-businesses. It is also argued that ROSCA can be placed within a broad set of institutions that provide credit (Besley et al, 1993), earning opportunities (Bisrat et al, 2012; Hossein, 2018), social support (Geertz, 1962) and mutual aid (Klonner, 2008). However, there is a dearth of literature exploring ROSCA's relevance in the Nigerian rural context, focusing on women and given exogenous shocks like COVID-19, which further worsen the situation of these cohorts. Therefore, it is imperative to provide insight into how ROSCA can be relevant to the growth of women's business and increased social relevance given Nigerian and COVID-19 contexts.

Two central questions are set to be answered in this study, vis-à-vis; to what extent can ROSCA participation promote women empowerment as an alternative financial inclusion in the Covidian era? What are the challenges facing the successful operationalization of ROSCA as a form of cooperative mechanism in the rural setting in Nigeria? This study is anchored on the collective action approach by Mancur Olson(1965) which seeks to explain the action taken by a group of people whose aim is to improve their standard of living and achieve a common goal. In this light, we linked the relationship between ROSCA involvement and measurable business outcomes such as profitability, customer satisfaction, new branch opening, and new equipment acquisition.

The remaining part of the study includes the materials and methods, main findings, discussions, conclusions, and recommendations.

## 2. Materials and Methods

The study adopted a mixed-method design. ATLAS *ti* 9 was used to extract the emerging themes and codes from the interview excerpts of 3 rural micro-business owners involved in ROSCA. They were selected across three towns in Southwestern Nigeria to represent the three rural contexts central to the study. Using a minimum sample estimate for survey of 384 given an unknown population sample (Teddlie, & Tashakkori, 2009) a sample 384 was selected and administered initially to both men and women in micro-businesses out of which a sample of 250 women-led micro-businesses were extracted from the data in the three selected towns in Osun State namely, Ile-Ife, Ilesha, and Oshogbo. The study analyzed the survey data using econometrics tools such as ordered generalized logistics and Variance covariance estimate least square regression. Also, sum approach was used to extract the factor scores for both ROSCA and the outcome variable (performance). Statistical techniques (tables, and pair-wise correlation) were employed to analyze the quantitative part. At the same time, thematic analysis was adopted for the qualitative section. Following Yusuf & Ijaiya (2009), ROSCA was measured as a series of expenses (capital accumulation, household expenditure, health care, insurance, debt payment, children school fees, and other expenses) ROSCA money could be spent on in the household and business. Specifically, in estimating the effect of ROSCA on performance of the micro-businesses, the sum score generated from the sum score approach was used following the suggestion of Distefano et al.(2009). In addition, due to the ordinal response pattern of the outcome variable, ordinal generalized linear model was adopted to explain the effect of ROSCA adoption on business performance. It can be noted that the model becomes necessary because of the violation of the proportional or parallel odds assumption of the traditional ordered logistic model as the parallel assumption test showing a brant test of Chi<sup>2</sup> value of 4506 and pvalue=0.000(<1%) and the approximate likelihood ratio test of Chi<sup>2</sup> 63.31 and p-value of 0.000(<1%) (see table 6). The two test consistently affirmed the violation of proportional odds assumption, hence the adoption of ordinal generalized linear model(Williams,2008). The heterogenous choice model is further estimated using both the aggregated and diaggagated models (table 3 and 5). The aggregated model used the sum core index to proxy ROSCA while the disaggregated model used a granulated measure of ROSCA to test their effect on the performance of the women-led micro-businesses.

## 3. Main Findings

### 3.1. Quantitative Findings

Table 1 shows that 0.78% of the respondents are below 18, more than one-third(32.81) of the respondents are within the age bracket 18-35, more than half(53.91%) of the respondents are within the age of 36-65, and one out of ten(12.5%) of the respondents are

within the age of 65 and above. One-quarter (19.92%) of the respondents had a primary school degree as educational qualification. About half (46.88%) of the respondents had secondary school degree as educational qualification while one out of four(21.88%) of the respondents had HND/B.sc/BA as educational qualification. One out of twenty(6.64%) of the respondents had B.sc as educational qualification, and about 5 out of 100(4.69%) of the respondents had M.Sc./MA/PHD as educational qualification.

Concerning marital status, one out of ten(10.55%) of the respondents are single while more than one out of hundred(1.95%) of the respondents are divorced. About one-fifth(19.92) are widow, and more than two-third (67.58%) of the respondents are married. More than half of the respondents are Christian (62.11%), one third are Muslim (36.72%). Less than 1/100(0.39) of the respondents are traditionalist, and the same quantity belongs to other religion. More than one third of the respondents resides in Osogbo (39.45%), less than 1/3(30.21%) of the respondents resides in Ile-ife, and a little less than 1/3(30.21%) of the respondents resides in Ilesha. This shows a proportionate distribution across the levels of ruralization. More than 1/20(3.52%) of the respondents had a circle of collection once in a year, majority (95.7%) of the respondents had a circle of collection twice in a year, and almost all the respondents had a circle of collection twice/thrice in a year. Almost (99.2%) all the respondents had a daily nature of ROSCA, and less than 1/100 (0.78) of the respondents had a weekly nature of ROSCA. Less than 1/2 (39.84%) of the respondents receives below <sup>21</sup> 18000 as monthly income, more than one-third (37.17%) of the respondents receives 18000-100000<sup>22</sup> as monthly income, and more than one-fifth (23.05%) of the respondents receives 100000 and above as monthly income.

Table 4.3 shows the correlation matrix, a measure of the degree of association and direction of relationship among the variables. The table presented correlation coefficients of explanatory variables required for testing for multicollinearity. According to the assumption of the classical regression model, when explanatory variables within a model are correlated, the model is not good fit. It tends to exhibit overstated or understated standard errors possibly. Correlation among independent variables affects the efficiency of model estimates. However, if the partial correlation value between independent variables is less than 0.8, it means there is no multicollinearity between independent variables (Gujerati and Porter, 2010). From table 4.3, no statistically significant coefficient that is up to 0.8, therefore, no existence of multicollinearity problem among variables. The variance inflation factor result table also supports this (see table 4).

Table 3 shows the various analytical models used in the study to test the impact of ROSCA on the performance of the selected businesses. Model 1 is the ordinary least square with variance covariance estimates while models 2 to 5 show the results of the ordered generalized linear models expressing different measures of performance. However, the

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<sup>21</sup> This is equivalent to 43 USD based on the official exchange rate of 415 Naira to 1 USD as at March,2022.

<sup>22</sup> This is equivalent to 43-240 USD based on the official exchange rate of 415 Naira to 1 USD as at March,2022

outcome variable used in model 1 is a composite measure of the performance indicators extracted from the sum approach. Therefore, a scalar gives an aggregate measure of business performance. Similarly, ROSCA is measured as a composite measure of what ROSCA is used for (Yusuf & Ijaiya ,2009). Therefore, model1 shall be used for the purpose of interpretation. Also, in a bid to facilitate interpretation, each covariate has been recoded to a binary variable showing the presence or absence of the spending pattern using ROSCA funding by the respondents (Yusuf & Ijaiya,2009).

In this light, ROSCA is positively and significantly driving the performance of these micro-businesses. However, when using the disaggregated model in table 5, capital accumulation negatively drives those involved in ROSCA's business performance. By implication, a unit increase in capital accumulation decreases performance by 0.07unit. Similarly, household expenditure also positively and significantly impacts business performance and with a unit increase(decrease) in household expenditure, business outcome responds by 0.39unit. Health care also positively driving performance. A unit increase in health care leaves 0.06units of impact on business performance.

Conversely, debt payment negatively impacts business performance. A unit increase (decrease) in debt payment decreases(increases) business performance by 0.09 unit. Expenditure on children's school fees positively affects business performance while other expenditures also positively affect business performance.

Overall, the joint assessment of the variables that proxied ROSCA have joint significant effect. By implication, the hypothesis that ROSCA significantly drives business growth is not rejected (Fstatistics=4.8,  $p < 1\%$ ). The variables explained 14% of the variation in business performance while the remaining is explained in the stochastic disturbance.

### 3.2. Qualitative Findings

The complementary analysis using the interview outcome shows ROSCAS' benefits were classified into five distinct classes. These include business expansion, funding children's education loan repayment, and asset acquisition (see figure1).

Some of the respondents reported ROSCA serves as their profit. In other words, it serves as an avenue to save up their daily profit and then get a lump sum after a period for business expansion.

*“Whenever it is collected, it serves as our profit [...]”*

*“Presently, it has improved my business in various ways [...]”*

Others stated they pay their children’s school fees, land acquisition and other properties and loan repayment. “[...] can be used for school fees acquiring land or other properties [...]”.

#### **4. Discussions**

Admittedly, the overall impact of developmental programs depends largely on the context and social norms prevalent (Galie et al, 2015). It is however established in this study that there is strong evidence for the effect of ROSCA participation on the business outcomes of rural women (see table 3). This corroborates the findings of (Mwambi et al, 2021) who reported women membership in coops increases such business outcome like independent decision-making and income in women-led businesses. Aside this, involvement in entrepreneurship has been linked with increased perception of the society on women (Ojah, 2019). Also, the majority of the women surveyed admitted they ploughed back between 41-60% of their ROSCA proceeds into their business (see figure 3). The study also established that most of the sampled businesswomen did not finance their business only with ROSCA proceeds. Also, agreeing with (Ojha, 2019) who reported most of the women who have taken micro loan invested such loan in either expanding the business they are running on or buying the materials such as fertilizers or insecticides for crop agriculture, food, and medicines for the livestock and so on. Aside this, the study finds ROSCA was seen as an alternative financial source to maintain the business and sort other expenses domestically (schools fees, household expenditure, healthcare, and related expenses) that could solely be dependent on business capital and profit. By implication, instead of using business capital to pay for these exigencies, which could expose such business to potential risk of bankruptcy (as the largest percentage earn below the minimum wage), the ROSCA proceeds would be diverted to cater for such expenses. This strengthens the position of Ambec & Treich (2007) that ROSCA proceeds helps participants to purchase durable goods. Where, in turn, channeling the ROSCA proceeds to support the household expenses can increase women's influence at home (Niyonkuru & Barrett, 2021). Hence, the resultant effect of the ROSCA proceed helps to give a voice to the woman in the family while sustaining her business funding. This further established the empowerment perspective to the ROSCA as an alternative financial source. This finding corroborated (Mwambi, Bijman & Galie, 2021).

Also, these results were confirmed with the outcome of the qualitative analysis which further underscores the role of ROSCA in financially empowering women in Nigeria. However, challenges such as default in loan repayment by members and occasional fund misappropriation by some of the leaders were prevalent. This supports the findings of Ijaiya & Yusuf (2009) who confirmed fund misappropriation and loan default were major issues facing ROSCA in Nigeria.

#### **5. Conclusions and Recommendations**

The study, therefore, concluded that ROSCA significantly serves an alternative financial source for the rural women and hence, help in empowering this economically vulnerable groups, especially at such a time with heightened business turbulence caused by Covid 19 pandemic. For long-term/sustainable gender quality and women empowerment to be

achieved, the developers of gender-related laws and policies should work closely and in tandem with men and women in rural areas to understand cultural conventions and gender power relations to reconcile them with achieving gender equality through initiatives such as ROSCA

**Conflict of Interest:** There is no conflict of interest

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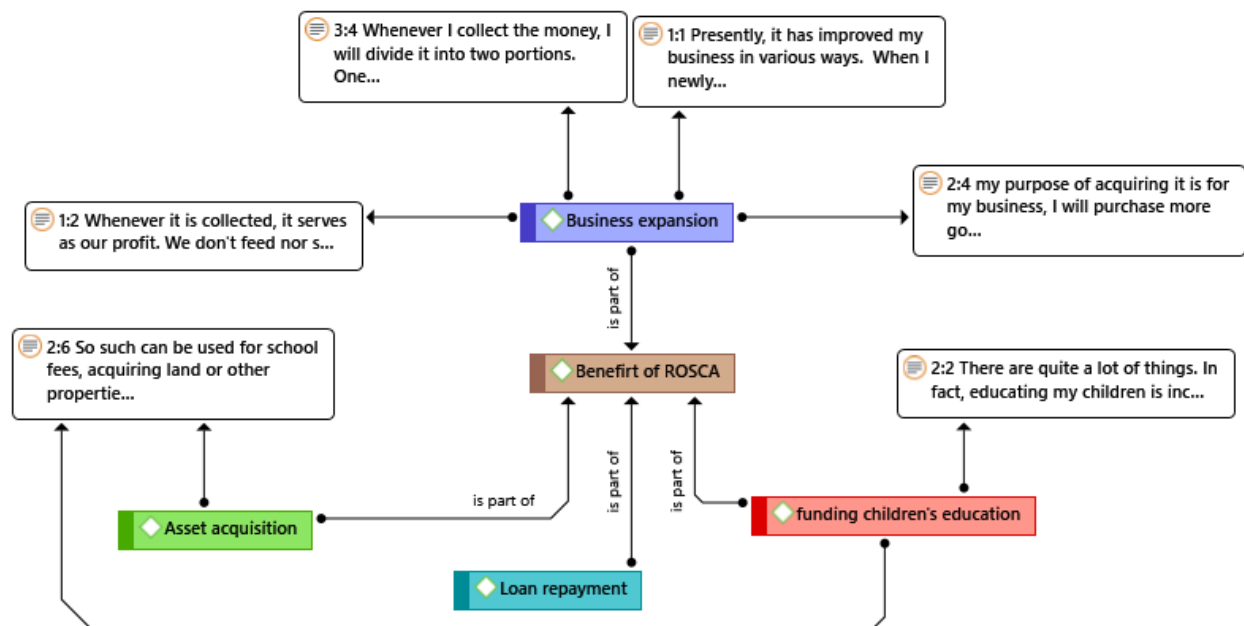
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### Tables and Figures



Source: ATLAS ti 9

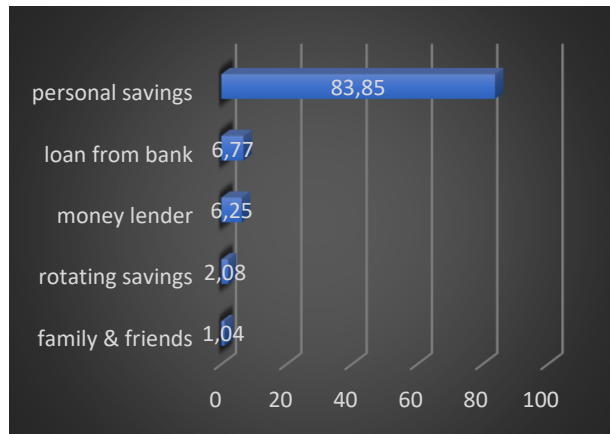
**Figure1: Semantic Network Showing the Benefits of ROSCA**



**Table1: Demographic Information of Respondents**

<b>Variables</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Age</b>	Below 18	2	0.78
	18-35	84	32.81
	36-65	138	53.91
	65 and above	32	12.50
<b>Qualification</b>	Primary	51	19.92
	Secondary	120	46.88
	HND/B.sc/BA	56	21.88
	B.sc	17	6.64
<b>Marital status</b>	M.Sc./MA/PHD	12	4.69
	Single	27	10.55
	Divorced/separated	5	1.95
	Widow	51	19.92
<b>Religion</b>	married	173	67.58
	Christianity	159	62.11
	Islam	94	36.72
	Traditional	1	0.39
<b>Place of residence</b>	others	2	0.78
	Oshogbo	101	39.45
	Ile-ife	85	30.99
	Ilesha	70	30.21
<b>Circle of collection in a year</b>	Once	9	3.52
	Twice	245	95.70
	Twice/thrice	2	0.78
<b>Nature of ROSCA</b>	Daily	254	99.22
	Weekly	2	0.78
<b>Monthly income</b>	Below 18000	102	39.84
	18000-100000	95	37.17
	100000 and above	59	23.05

**Source of Business Finance**  
**business**



**% of ROSCA Ploughed back into the**

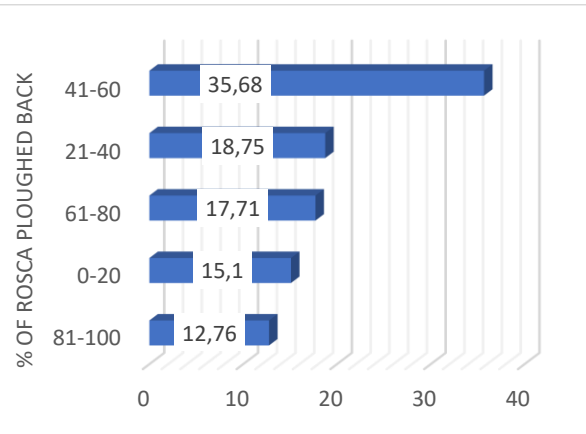


Figure2: I finance my business through business

Figure3: % of ROSCA Ploughed back into the

**Table 2: Correlation Matrix**

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) performance	1.000							
(2) capital accumulation	0.114	1.000						
(3) household expenditure	0.276*	0.225*	1.000					
(4) healthcare	0.184*	0.302*	0.380*	1.000				
(5) insurance	0.268*	0.135*	0.120	0.179*	1.000			
(6) debt payment	-0.038	-0.122	0.092	0.048	0.064	1.000		
(7) school fees	0.186*	0.224*	0.226*	0.224*	0.097	0.103	1.000	
(8) other expenditures	0.079	0.134*	-0.083	0.151*	-	0.088	0.084	1.000

\* shows significance at the 0.05 level

**Table 3: Regression Estimates**

VARIABLES	(1) Performance	(2) customer satisfactio n	(3) sales turnover	(4) Profitability	(5) new branch
ROSCA	0.20* (0.06)	0.95 (0.12)	2.24* (0.33)	2.23* (0.42)	1.87* (0.37)
Age	-0.12** (0.06)	0.64** (0.13)	0.79 (0.18)	0.92 (0.18)	0.80 (0.19)
Qualification	0.04 (0.03)	1.20*** (0.11)	1.06 (0.11)	1.04 (0.11)	1.13 (0.12)
Marital status	-0.05 (0.04)	0.91 (0.10)	0.90 (0.10)	0.61* (0.09)	1.06 (0.17)
Religion	0.01 (0.06)	1.07 (0.21)	1.12 (0.22)	1.12 (0.30)	0.77 (0.19)
Constant	2.34* (0.24)				
Observations	256	256	256	256	256
R-squared	0.13				
Pseudo R-squared	.	0.0118	0.0632	0.0971	0.0476

Robust standard errors in parentheses

\* p<0.01, \*\* p<0.05, \*\*\* p<0.1

**Table 4: Multicollinearity Test**

Variable	VIF	1/VIF
Age	1.14	0.880982
ROSCA	1.13	0.886135
Marital Status	1.1	0.910262
Qualification	1.05	0.950076
Religion	1.01	0.98612
Mean VIF	1.09	

**Table 5: Disaggregated Model**

VARIABLES	(1) Performance	(2) New Branch	(3) Customer Satisfaction	(4) Sales Turnover	(5) Profitability
capital accumulation	-0.07 (0.13)	0.03* (0.03)	1.28 (0.49)	1.06 (0.40)	0.72 (0.32)
household expenditure	0.39* (0.10)	3.69* (1.51)	1.16 (0.32)	3.19* (1.04)	2.67** (1.06)
health care	0.06 (0.08)	4.56* (1.82)	0.57** (0.16)	2.17* (0.61)	2.12** (0.68)
debt payment	-0.09 (0.07)	0.25* (0.10)	1.39 (0.35)	0.53** (0.14)	0.66 (0.19)
children school fees)	0.10 (0.11)	2.94** (1.36)	0.87 (0.25)	1.28 (0.41)	1.56 (0.65)
others	0.12 (0.08)	0.77 (0.28)	1.79** (0.45)	0.80 (0.23)	0.81 (0.25)
Age	-0.14** (0.06)	0.63*** (0.17)	0.65** (0.13)	0.71 (0.17)	0.84 (0.19)
Qualification	0.04 (0.03)	1.06 (0.12)	1.20*** (0.12)	1.06 (0.12)	1.05 (0.12)
Marital status	-0.05 (0.05)	1.07 (0.21)	0.89 (0.12)	0.95 (0.12)	0.63* (0.11)
Religion	0.00 (0.06)	0.99 (0.32)	1.00 (0.19)	1.15 (0.24)	1.15 (0.31)
Constant	1.73* (0.53)				
Observations	256	256	256	256	256
R-squared	0.14				
Pseudo R-square	.	0.193	0.0236	0.0809	0.102
F-stat	4.81*				

Robust standard errors in parentheses

\* p<0.01, \*\* p<0.05, \*\*\* p<0.1

**Table 6 : Tests of the parallel regression assumption**

	Chi2	df	P>Chi2
Wolfe Gould	33.08	30	0.319
Brant	4506	30	0.000
score	1021	30	0.000
likelihood ratio	62.31	30	0.000
Wald	2.1e+04	30	0.000

# **Coronavirus (COVID-19) A Severe Push to the Fourth Industrial Revolution (4IR) Whether Ready or Not: African Realities**

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## **Abstract**

The world is tapping into a new development era called the Fourth Industrial Revolution (4IR). The new development era comprises the three drivers namely; digital, physical and biological technologies. This paper examines Africa can utilise the 4IR to respond to the socio-economic impacts of the coronavirus, known as COVID-19. The methodology used is a quantitative approach to gather secondary data from various sources such as books, academic articles, government documents, or records of various African countries. The study findings reveal that African countries are not ready for the 4IR as they are still on the developmental stage. The study recommends that governments should ensure that technology is utilised to accommodate citizens in the economic sphere. African countries should channel their education systems and careers to adapt to the 4IR. African countries should promote entrepreneurship education to encourage enterprises to keep abreast with technology. Furthermore, there should be cooperation among African countries to smoothly adjust to this new era. However, this requires strong and good governance to ensure that this transition is carried out properly without a catastrophic impact on economies.

**Keywords:** Africa, COVID-19, Economic Impact, Fourth Industrial Revolution, Poverty

## **1. Introduction**

In late 2019, China experienced an outbreak of coronavirus known as COVID-19. The coronavirus rapidly spread from Wuhan, China to all countries in the world. The outbreak of the coronavirus, has affected all sectors of the society (Kurt, 2020). All countries developed new health policies to fight the coronavirus. These include aggressive policies to enforce lockdowns to temporarily cease public gatherings and economic activities in certain sectors of the economy, quarantine of infected people, encouraging people to stay at their respective homes, postponement of physical contact learning, and restrictions on travel (Huang, Lin, Wang and Xu, 2020). The spread of coronavirus has transformed how people

work. Enterprises have been brainstorming on how to operate in the presence of the coronavirus without heavily depending on human labor. Moreover, even universities have been promoting e-learning to ensure that learners and students continue with their studies during the lockdown period. Public gatherings such as churches were prohibited and most preachers resorted to online preaching to engage with the congregations. Moreover, there is an ascent of online shopping, whereby, people purchase goods from various stores online and that led to the despondent of physical stores (Kavitha and Kannan, 2020). Many people have lost their jobs (or are the risk of losing their jobs) because of the COVID-19 prevention measures. Some countries such as South Africa have established coronavirus relief funds for enterprises to secure people's employment. However, notwithstanding those initiatives, most enterprises continue to retrench employees and cut employees' salaries (South African government assistance measures, 2020; Majjama'a, Musa, Isah and Adamu, 2020). The above assertion describes the fourth industrial revolution in a nutshell, that human beings will be replaced by robots in various sectors, manufacturing, and various enterprises (Ayentimi and Burgers, 2019).

Therefore, based on the identified challenges outlined above, it is important to ask if technology uplift or collapse the economies of African. African countries have been colonized, lag, and disadvantaged based on their historical background. The African economies are fragile. This study argues that although African countries are not ready for the full adoption of the 4IR, the coronavirus is playing a vital role to ensure that they tap into it despite their lack of readiness. Naude (2017) asserts that the procedure to digital transformation is critical that the management must be careful as it involves technology, organizations, culture, and social changes that will impact the organizations. Against this backdrop, this article aimed to explore the contributions of the COVID-19 to foster the 4IR in African countries. It examines the effects of COVID-19 on the use/acceleration of 4IR AND provide an exploration of the linkages between COVID-19 and 4IR in African Countries.

## **2. Materials and Methods**

This manuscript relied on the 4IR leadership theory. It used content analysis to examine the data collected from the literature. The paper adopted the qualitative research method to gather secondary data from various sources such as books, academic articles, and government documents. The secondary data was utilized to analyse the COVID-19 and 4IR and how the two variables are linked in this context. Through the qualitative research method in the form of document analysis, this manuscript made various recommendations to the African countries to embrace technology.

### **3. Results and the Discussion of Research findings**

#### **Defining Coronavirus (COVID-19)**

The World Health Organization (WHO) named the coronavirus, COVID-19 (Yang, Zheng, Gou, Pu, Chen, Guo, Ji, Wang, Zhou, 2020). Furthermore, WHO described the coronavirus, as family of viruses are associated with cold and Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) (Abodunrin et al., 2020). MERS is comparable to coronavirus as the virus originates from animals mostly bats and transmitted to human beings (Abodunrin et al., 2020). However, the outbreak of Coronavirus in Wuhan, China has been associated with SARS. Coronavirus is a transmitted disease with symptoms such as cough, fever and mostly difficulty with breathing. The coronavirus has affected countless people all over the world and people kept being infected while the new number of deaths are being reported daily (ABC News, 2020). Individuals that are at risk for contracting the disease are those that have comorbidities such as diabetes, cardiovascular, hypertension and various chronic diseases (Yang et al., 2020). The elderly and people who have comorbidities were be required to leave the employment sector unwillingly to save their lives. African countries have resorted to social distance and the utilization of technology to keep up the country's economic growth (Abebe, 2020). The African health systems have been stunned by the velocity of the spread of the coronavirus and the countries have enforced the total shutdown. However, essential enterprises and services have been granted permission to operate during the national shutdown. The coronavirus has collapsed African economies and unemployment has skyrocketed within a short period. The WHO has provided guidance that people should wear face masks and sanitize their hands regularly (Abodunrin et al., 2020; Yang et al., 2020). Despite the recommendations, African economic growth and economic development continue to rapidly decline. Various technological strategies have been employed by the government and enterprises to ensure that people receive essential services and products.

#### **4. The Fourth Industrial Revolution (4IR)**

The industrial revolutions emerged from Britain in the 1760s (Li, Hou and Wu, 2017). The driving force of the First Industrial Revolution was steam and water energy. The Second Industrial Revolution was driven by electricity, while the third was driven by information and communication technologies (ICTs) The 4IR is driven by digital, physical, and biological technology (O'Brien, 2016; Schwab, 2016). Digital technology is categorized by internet, machine learning, artificial intelligence, and digital platforms (Cronje, 2016). The communication sectors in African countries have improved and adapted to the utilization of technology. The communication industry has played a positive role in African countries without tempering with peoples employment. Instead, it created employment through internet cafes and other technological enterprises. Through artificial intelligence, companies can track goods than to rely on human beings.



The second driver of the fourth industrial revolution is physical technology. Balkaran (2010) describes the physical technology as the invention of autonomous vehicles, which made them rely on technology than manual. Hence, in future, vehicles would drive themselves and the manufacturing process of vehicles will change and highly advanced machinery would be utilized and human laborers will do less work and be paid less. The physical technology plays a positive role by assisting disabled people with automation of wheelchairs and other necessary gadgets. The last driver of the fourth industrial revolution is biological technology that is centred on the genetic and neurotechnologies (Li et al., 2017). The biological technology can boost the agricultural production sector to ensure maximum production (Morrar, Arman and Mousa, 2017). The challenges of food insecurity in African countries can be addressed through biological technology. However, the utilization of biotechnology would benefit commercial farmers while small-scale farmers would struggle to compete due to limited resources (Jarchum, 2019). Biotechnology through neurotechnologies can be utilized to improve communication, education, intelligence, treatments for specific diseases, and the military (Potomac Institute, 2014). Some academics have argued that the 4IR would be catastrophic to peoples' livelihoods compared to the previous revolutions. The previous industrial revolutions have not extremely tempered with peoples' employment. The 4IR has been characterised by the collapse of various enterprises and people replaced by robotic equipment. Frey, Osborne and Holmes (2016) revealed shocking results that 66% of jobs in developing countries are at risk. The digital technology ensures that people are digitally connected globally.

## **5. The Link Between Coronavirus and Fourth Industrial Revolution African Experience**

### **Nigeria**

In March 2020, Nigeria reported twenty-two (22) cases of people infected by the coronavirus, and two (2) people recovered (Maijama'a et al., 2020). Nigeria is a country that is endowed with various resources such as physical, natural, and human resources (Uzochukwu, Alloysius and Olohi, 2019). Therefore, the impact of coronavirus on the Nigerian population has threatened countless livelihoods of people. Moreover, the Federal Government of Nigeria has also encouraged the citizens to comply and remain indoors and wear safety masks. Nigeria is one of the countries that have a high rate of a population of 108,491,992, and the velocity in which the disease is spreading is worrying in terms of its economy (Gokcekus, Kassem, Yunusa, Musa, John, Usman, Yahuza and Ahmad, 2020). Nigeria has a high population rate and most people are poor and depend on various enterprises for survival (Lowenthal, 2014). The economic shutdown of the economic activities in Nigeria has collapsed Medium, Small, and Micro-enterprises.

The coronavirus has affected the National Petroleum Corporation of Nigeria. Some employees have been retrenched while others encountered a reduction in salaries (Maijama'a et al., 2020). Nigeria is rich in oil and the International Monetary Fund of Nigeria's

projections were reduced from 2.5% to 2% due to the decline of oil prices caused by the coronavirus outbreak (Maijama'a et al., 2020). The war over oil in the fourth industrial revolution will not be necessary since certain resources would not be valuable in this era. Recently, countries are seeking a possible way of increasing production through the utilization of technology. Countless petroleum vehicle industries would collapse due to Tesla opening the gap in becoming a monopoly for producing electric vehicles (Sun, Li, Wang and Li, 2020). Bayerische Motoren Werke (BMW) has been preparing and positioning itself in the fourth industrial revolution era and placed charging pots at their car dealerships (Sun et al., 2020). Therefore, the fourth industrial revolution would also collapse the filling stations whereby people charge their electric vehicles rather than filling vehicles with petrol or diesel.

Moreover, environmentalists support electric vehicles since they save the environment, cause less pollution as compared to vehicles that utilize petroleum. Climate change is a global problem and various sectors have reduced the pollution caused by their industries and that gives the electric vehicle companies an advantage to produce more cars of which will collapse economies (Nimesh, Sharma, Reddy and Goswami, 2020). The model-based policy analysis is that electric vehicles may be utilized as a tool to reduce gas emissions in the transport system (Vilchez & Jochem, 2020). Vilchez and Jochem (2020), further states that developed countries such as Germany, France, China, India, the United States, and Japan have shifted their focus to electric cars. Observantly the previous assertion developed countries are mentioned and no African country was mentioned, hence, the study argues that African countries are not ready for the fourth industrial revolution. Moreover, that is just the beginning of tapping into the fourth industrial revolution and the study predicts that by 2021 more electric cars would be produced and exported to African countries. That is why the study argues that the fourth industrial revolution is emerging in African countries and Nigeria is one of the countries faced with this harsh transition.

Enterprises and government are currently re-engineering their strategies to suit the fourth industrial revolution (Lowenthal, 2014). Sectors are reengineering strategies into technological digital, physical and biological technology due to the coronavirus. Akinsuyi (2018), states that the Senator of Nigeria Bola Ahmed Adekunle Tinubu has revealed that the government plans on how to re-engineer the strategies in improving the country, however, it would require commitment and patience. Nigeria was already re-engineering their strategies of tapping into the fourth industrial revolution, however, the coronavirus caught the country off-guard and the long-term strategies and the budget has to be revised immediately to boost the current economy of which cannot occur overnight. Further, Moghalu (2018) vividly described how the Nigerian economy is so fragile, most people are poor and coronavirus is slowly but surely bringing its economy to its knees and hence, the country requires re-engineering rapidly so. The rush to the fourth industrial by a coronavirus, in Nigeria, will drifts in wealth flow, benefit those with capital, a rise of authority, and power (Uzochukwu et al., 2019).

## Uganda

Melkas, Oikarinen, and Pekkarinen (2019) revealed that most first-world countries utilize advanced technology at their disposal to exploit their counterparts third-world countries using the word “help”. The emergence of the fourth industrial revolution a few years in Uganda has been slowly changing how people perform certain tasks. However, various scholars such as Ayentimi and Burgess (2019) have argued that the fourth industrial revolution has the potential to ensure socio-economic progress. While other scholars describe the fourth industrial revolution as a strategy to provide better services to the public including education, healthcare and agricultural sectors, however, if this is rushed in Uganda it will backfire. Mutambi (2011), states that Uganda’s Vision 2040 was to foresee the country transformed towards a modern and progressive country in less than 30 years. Uganda’s future vision was devastated by the emergence of coronavirus which unwillingly forced the country to be abreast of technology overnight, however, with fewer resources the country is struggling. Hence, the paper argues that through the coronavirus the fourth industrial revolution entered African countries whereby nobody anticipated. The Uganda Integrated Industrial Policy for Sustainable Industrial Development and Competitive report (United Nations Industrial Development Organization, 2007), states that Uganda had political instability and mismanagement at government spheres in the late 1970s and 1980s which barricaded their economic progress and adapting to technology at an early stage.

During this era, the industrial, educational and commercial sectors were negatively affected and are going to take the government years to recover and be abreast of technology (Nalubega and Uwizeyimana, 2019). Moreover, Uganda has a high rate of unemployment dominantly youth, lack of skills development, poor entrepreneurial behavior, poor innovations, poor infrastructural facilities including energy, roads, waterways, railways, and the internet (Mutambi, 2011). Uganda has various challenges as identified in the above assertion, however, recently the Uganda government is investing more into physical, digital, and biological technology to cope with coronavirus. The fourth industrial revolution requires skilled labor, innovative entrepreneurs, finance, infrastructural facilities and policy processes (Mebratu, 2002). The emergence of the coronavirus affected even Uganda educational sector because online teaching requires skills and adequate time to prepare. The study of Mutambi (2011), avers that 11% of the Uganda population has access to electricity. Moreover, lack of access to electricity in some areas in Uganda can hinder students and learners from learning online. The coronavirus has frustrated the Uganda government and its population because student's and learners' activities have been drastically affected and parents live in fear to take their children to schools and Universities. The world is changing whereby innovations and technology have changed how people do things, even the new management practices are needed to solve countless situations (Verheugen and Potocnik, 2005).

## **South Africa**

The National Institute for Communicable Diseases in South Africa has confirmed the first case of coronavirus on 5 March 2020 (National Institute for Communicable Diseases, 2020). The velocity of the spread of the virus has led the South African Health Department to be proactive in reducing the spread of the virus. The government enforced the lockdown strategy to limit the spread of the virus (Battersby, 2020). The lockdown strategy had implications on people's mental health, stress and depression (Chaturvedi, Vishwakarma and Singh, 2021). Moreover the lockdown strategy has negatively affected people's livelihoods, enterprises, investors, and profits were lost. The loss of employment and salary cuts has reduced people's purchasing power while others even sold vehicles with inauspicious prices to ensure that their families are well taken care of. Enterprises to cope with the impact of the coronavirus have employed the utilization of technology to continue with the production. Nedbank has implemented its digital technology to ensure that customers receive services without physical contact with the consultants (Winig, 2017). Moreover, the coronavirus has been a driving force for enterprises such as Banks to fully embrace and tap into the fourth industrial revolution.

All the banks have introduced digital technology to provide service to their customers; however, this strategy will soon lead to loss of employment in the bank sector. Banks in South Africa employ countless people and provide people the opportunity to gain skills, experience, and income to improve their standard of living (Winig, 2017). The utilization of digital technology is mostly supported by entrepreneurs because they can maximize profits at the lowest cost than to pay human resources. Not only did the coronavirus push enterprises to utilize technology, but various educational sectors such as universities, colleges, secondary and primary schools also had to abreast of technology immediately. The South African universities are coping with online teaching, however, secondary and primary schools are still a major challenge for the Department of Education. Srithazith and Ismail (2020) have further stated that due to the coronavirus student's fail to write examinations, difficulty in accessing notes or slides, and crucial exercises, therefore, the technological methods were utilized to save the academic year 2020. The South African economy has been collapsing rapidly due to the coronavirus and the country's certain sectors do not have the technological tools and skills to cope with the pandemic hence people become jobless without income and wage.

## **Ethiopia**

The coronavirus has worsened the economy of Ethiopia to be on the verge of collapsing. If the coronavirus continues to spread fast in the country its healthcare system will be overstrained with less assistance from nearby countries (African News, 2020; Deshwal, 2020). It is difficult for African countries to assist each other during this coronavirus pandemic period as each country's economy is declining and people's lives are

being lost. Ethiopia is one of the poorest countries in the world (Demissie, 2019). Ethiopia still struggles economically and the ascent of coronavirus would deepen the country into extreme poverty and loss of employment overnight. The coronavirus has reunited the private and public sectors to work together and strategies on how the economic activities can continue while protecting the citizens at the same time. The Ethiopian horticulture due to the coronavirus has lost \$11 million in less than two (2) weeks and incurred the difficulty of paying 150, 000 employees (Abebe, 2020). Most people in Ethiopia depend on agriculture for employment opportunities and the horticulture farmers in Ethiopia were forced to retrench people due to the low demand for products. The horticulture was forced to retrench people and utilize technologically advanced equipment for production (Negatu, 2019). People were demoralized by the replacement of machines and robots to perform tasks that were performed by human beings. The horticulture replacing employees with robots and machinery has reduced the company costs. The above assertion describes how countless people would be unemployed due to the technology brought by the fourth industrial revolution.

Various enterprises have used the coronavirus as a strategy to enforce technology in their enterprises, while other traditional enterprises collapse due to lack of skills and funding to abreast of technology (Balkaran, 2010; Yang et al., 2020). The lockdown has interrupted people 's lives, livelihoods and the worst-case scenario is that people now live under extreme conditions (Martinez-Alvarez, Jarde, Usuf, Brotherton, Bittaye, Samateh, Antonio, Vives-Tomas, D'Alessandro and Roca, 2020). The Ethiopian government has put in place several financial measures to aid enterprises affected by the coronavirus, however, the economic stability of the country is unstable and fragile (Abebe, 2020). The coronavirus will take months or even more than that and if the country is struggling at the early stages of the pandemic, going forward the country 's economic and social development would be negatively affected. Enterprises that utilize the digital and physical technology would take little advantage in this era and this will be the rise of monopolies in the business sphere of

## **Rwanda**

The emergence of coronavirus in 2020 has engulfed all countries and negatively affected the daily activities of people. The outbreak of coronavirus in Wuhan, China in 2019 has led to the disruptions of different forms of economic activities (Ayittey, Ayittey, Chiwero, Kamasah and Dzuvoor, 2020). The coronavirus has negatively affected Rwanda in terms of trade, small and medium enterprises, and the agricultural sector (Bizoza & Sibomana, 2020). Different types of economic activities were negatively affected especially enterprises and due to the coronavirus, various sectors have collapsed. Rwanda is an Africa country whereby, its economy was reaching a positive ascent, however, the disturbance caused by the emergence of coronavirus has negatively affected its flourishing economy. The country of Rwanda in 202 had 1,994 confirmed cases with five (5) death reported thus far (Rwigema, 2020). The velocity in which the virus was spreading in Rwanda, the country

had to immediately shut down the business activities to save more lives. Rwanda 's tourism sector was devastated by the coronavirus, towards the end of March and it was reported that in February the Hotels lost Rwf13 billion (Rwanda Hoteliers Association, 2020). Moreover, the poor performance of various sectors has led to the ascent of rampant unemployment and poverty which led the people of Rwanda to seek employment in various government sectors and enterprises.

The shutting down of business activities has unwillingly led to various enterprises remaining in the market through the establishment of technological facilities to provide services to the customers or beneficiaries. The restrictions of local travel in Rwanda as a strategy to curb the virus has negatively affected the transport industries and street vendors. Various companies and sectors in Rwanda have resorted to virtual meetings through the utilization of WebEx, Zoom, Microsoft Teams (Krisiunas and Sibomana, 2020). People attended virtual meetings at their comfortable places such as homes or offices. Moreover, the ascent of virtual meetings and classes for students has negatively affected people 's employment at lower and high-level institutions. However, various institutions struggled to provide education to disadvantaged students that do not have laptops or mobile cell phones or areas that do not have facilities such as electricity and network coverages. Thus, create an imbalance in companies and the educational sector, whereby, other learners and students' progress while others lag on their studies. Rwanda is like any other African country that is not ready to tap into the fourth industrial revolution fully, however, due to the circumstances enforced by the coronavirus they must adapt overnight. There has been a rise in online shopping for home deliveries without the physical contact between buyers and the sellers, moreover, for safety reasons the consumers pay online without holding any cash with their hands of which contributes to the prevention of the virus (Ngamiye and Yadufashije). However, this has resulted in micro-enterprises to collapse in Rwanda because they do not have the necessary online websites to offer their products of which led to the loss of employment. Rwanda has the ascent of Telemedicine, whereby, patients can consult with their medical Doctors or health care provider (HCP) digitally without physical contact unless is an emergency (Krisiunas and Sibomana, 2020)

## **6. Conclusions**

The paper has provided a brief description of fourth industrial revolution, coronavirus and provided the link between the two variables. In order for African countries to reduce the spread of the virus they had to restrict movements among citizens and strengthened their health departments with resources. The paper further explained the comprehensive understanding of the fourth industrial revolution and its drivers. The coronavirus has demonstrated how the fourth industrial revolution would affect humanity and how it has severely pushed different African countries to tap into new developmental era without proper planning. The literature has revealed that African countries are trying hard to survive the consequences of coronavirus. African countries are slowly adapting to the new environment, enterprises have turned their attention towards the utilization of digital,

physical and biological technology to maximize profits. It was also shown that the fourth industrial revolution can improve certain sectors and make peoples' lives easier. However, the fourth industrial revolution also poses a threat to peoples' livelihoods. The aim and objectives of this paper were achieved that the coronavirus presents an opportunity that could enable African countries to transition to the fourth industrial revolution.

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## **Multi-Criteria Analysis for Sustainable Decision Making: Opportunities for Waste and Recycling SMMES (Including Cooperatives) in Kwazulu-Natal**

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### **Abstract**

This paper reports on a study for the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (EDTEA) to identify and maximize opportunities in the waste and recycling sector for “*Small, Micro and Medium Enterprises (SMMEs) owned by women, youth, the disabled and previously disadvantaged*” in the province. Opportunities from various waste streams as resource potential for SMMEs and cooperatives are presented, this is part of the NCPC Industrial Symbiosis Programme in South Africa. Decision making to plan for waste management is a complex activity at the best of times. The complexity increases during a national state of disaster as was seen during the 2020/2021 Covid-19 outbreak (The Presidency, 2020). Another challenge was the lack of data (Chagunda, 2019), resulting in the study team having to utilise data from the national South African Waste Information System (SAWIS) and several other provincial data sources to inform decision making. A shortcoming of the SAWIS database is that not all waste generators report on to this national system, resulting in incomplete datasets. This paper outlines the approach and methodology taken to prioritise a single waste stream that could provide income generating opportunities for SMMEs (including cooperatives) in the province. A multi-criteria approach was followed whereby waste streams were assessed based on: economic value; the amount and distribution of waste in the province; the type of waste streams; the availability and ease of roll out of technology options; ease of surmounting barriers to entry; market types and market availability; alignment and contribution to improving the sustainable development goals (SDGs); opportunities for symbiotic relationships or collaborations (Illsley, Jackson and Lynch, 2007). After assessing the qualitative and quantitative considerations, organic waste opportunities were determined

to be the most ubiquitous and promising (with low barrier technology options for implementation) followed by bottom ash, as well as construction and demolition waste in the province. These waste streams remain relatively unexploited. Composting is the recommended technology to treat the organic waste fraction due to the relatively small up-front investment required for set up, scalability, and relatively low skills requirements. In certain circumstances simple off the shelf anaerobic digestion technologies for other organic fractions could also be used. A top-down approach to SMME development is not advisable (The dti, 2009; Godfrey et al., 2017), therefore an important recommendation is that SMMEs (cooperatives) which are already experienced or have a proven track record in the composting space should be considered for implementation.

**Keywords:** Cooperative, KwaZulu-Natal, Composting, Multi-Criteria Analysis, Organic Waste, SMME, Social Symbiosis, Sustainable Development Goals.

## 1. Introduction

The Council for Scientific and Industrial Research (CSIR) was tasked with identifying opportunities in the waste and recycling sector for '*(SMMEs) owned by women, youth, the disabled and previously disadvantaged individuals*' in the KwaZulu-Natal (KZN) province. The prioritised waste streams needed to be ubiquitous (i.e., known to be available in every municipality of the KwaZulu-Natal province) and be relatively underexploited. These were the overall aims of the project initiated through the KZN Department of Economic Development, Tourism and Environmental Affairs (EDTEA) and overseen internally in the CSIR by the National Cleaner Production Centre (NCPC). The overall project was designed around three phases namely: 1) identifying a ubiquitous priority waste stream (this paper), 2) identifying sources and quality of those waste sources and 3) the development of an implementation plan for small, medium, and micro sized enterprises (SMME) and cooperatives. This paper reports on the first phase of this project, namely the process followed to identify the priority waste streams.

The selection of the priority waste streams was key to maximize job opportunities through SMMEs. The client (EDTEA) was explicit in that the barriers to entry should be sufficiently low for the implementing agent to be able to roll out SMMEs in every municipality which were able to exploit a relatively under exploited and waste stream. It was critical that existing waste streams or material flows which are already being utilised by other SMMEs, vulnerable groups, or other established entities be excluded, to avoid disrupting existing activities. Instead, the intention was to identify underutilised waste streams.

It became apparent that the first task would be to identify waste streams in every municipality which ended up at landfill (and were therefore under exploited). This is aside from the mainline recyclables (DEA, 2012) like paper, plastics, glass, and tins which tend to be cherry picked by the informal sector or recycling companies, including SMMEs, due to their market value. Further, the waste streams would need to be analysed using multiple

criteria, which would allow ranking and prioritization of these waste streams. The next section provides some context to the methodology followed in conducting the multi-criteria analysis followed by the project team.

## **2. Methodology**

### **2.1. Approach followed**

A mixed methods data collection approach was followed involving both quantitative and qualitative techniques. Firstly, quantitative data was sourced from SAWIS to get an understanding of the types and distribution of different waste streams finding their way to landfill sites in the province as reported by the different municipalities. A report of wastes disposed per municipality was generated for the year 2019, this was summarized per waste type. It was found that only 18 of the 43 municipalities reported waste disposal data to SAWIS in 2019. Secondly, several criteria were considered of importance to ensure that the waste type prioritized was able to provide opportunities for '(SMMEs) owned by women, youth, the disabled and previously disadvantaged'. The initial criteria were based on the amount and distribution of waste in the province; the type of waste streams (including if it was general versus hazardous waste). Lastly, a scoring matrix was applied based on the availability and ease of roll out of technology options; ease of surmounting barriers to entry (including legislative, compliance and financial barriers); potential market types and market availability; alignment and contribution to the sustainable development goals (SDGs); opportunities for symbiotic relationships and impacts on existing livelihoods.

### **2.2. SAWIS Data Analysis**

Despite 2019 being chosen as the year for analysis, the project team decided that it would be prudent to rather examine data for at least 3 years (i.e., for 2019, 2018 and 2017) in case some waste types were missing which might be the case if just one year was considered.

Data for KZN (for 2019, 2018, and 2017) was then downloaded from SAWIS in the year of the project, 2019<sup>23</sup>, all analysis was done in MS Excel. Table 1 below provides a summary of these waste streams from the SAWIS database for 2019, 2018 and 2017. The facilities represent the entities where the waste was disposed i.e., the landfill sites in each municipality. Most municipalities report disposal at a single facility except for eThekweni (i.e., there were five facilities disposing "General: Municipal waste"), Newcastle (KZN252) had two facilities reporting "Hazardous: Liquid and sludge inorganic waste" and uMhlathuze (KZN282) had two facilities reporting "General: Construction and demolition waste" for 2019. Only 18 of the 43 local municipalities and one metropolitan municipality in KZN reported data to SAWIS for the three years under investigation.

**Table 1: Waste types based on facilities & mass reported (Tons/Annum) per year (SAWIS)**

Waste Types	2019		2018		2017	
	Facilities	Tons	Facilities	Tons	Facilities	Tons
General: Municipal waste	19	641,047	17	773,161	16	695,911
General: Construction and demolition waste	11	441,503	9	674,425	9	668,487
General: Commercial and industrial waste	8	206,701	8	278,517	8	288,379
General: Metals: Ferrous metal	2	1,674,032	2	7,560	2	9,151
General: Other	8	109,234	5	185,577	7	171,836
General: Organic waste	5	196,563	3	298,047	3	318,027
Hazardous: Liquid and sludge inorganic waste	5	131,796	4	124,611	5	131,761
General: Organic waste: Garden waste	10	47,992	8	52,705	8	61,555
General: Slag: Ferrous metal slag	2	108,781	2	232,391	2	167,832
Hazardous: Solid inorganic waste	3	37,732	3	57,338	2	124,691
General: Bottom ash	5	45,537	10	22,769	4	21,975
General: Slag: Non-ferrous metal slag	1	194,846	1	100,593	1	215,996
Hazardous: Miscellaneous	3	13,723	3	38,902	2	75,461
Hazardous: Bottom ash	2	22,260	2	45,846	3	35,116
General: Metals: Non-ferrous metal	2	167,860	1	959	1	686
Hazardous: Liquid and sludge organic waste	3	9,627	2	24,198	2	19,943
Hazardous: Fly ash and dust from miscellaneous filter sources: Fly ash	2	10,661	2	31,120	1	9,786
Hazardous: Solid organic waste	3	2,661	3	3,902	2	16,626

Waste Types	2019		2018		2017	
	Facilities	Tons	Facilities	Tons	Facilities	Tons
Hazardous: Mineral waste: Refractory waste	1	76	2	12,243	2	16,262
Hazardous: Solids containing halogens and/or sulphur	1	5,230	1	12,793	2	5,454
Hazardous: Spent pot lining (organic)	1	3,650	1	10,099	1	9,399
Hazardous: Waste oils: Waste oil	2	3,896	1	2,665	2	4,045
General: Organic waste: Food waste	5	204	3	113	3	4,108
General: Slag: Other	1	12,298	1	9,139	0	0
General: Sewage sludge	2	338	2	4,921	3	499
Hazardous: Lead batteries	1	6,371	1	13	1	11
General: Plastic: Polypropylene	0	0	0	0	1	14,500
Hazardous: Mineral waste: Foundry sand	0	0	1	360	1	6,547
General: Organic waste: Wood waste	1	2	1	2,304	1	1,588
General: Mineral waste: Refractory waste	1	9,754	0	0	0	0
Hazardous: Asbestos containing waste	2	599	2	57	2	235
General: Mineral waste: Foundry sand	2	1,068	1	319	0	0
Hazardous: Health care risk waste: Infectious waste and sharps	1	764	0	0	1	777
Hazardous: Mercury containing waste: Solid waste containing mercury	0	0	1	0	1	1,285
General: Tyres	1	24	2	36	3	339
Hazardous: Health care risk waste: Pathological waste	1	1,631	0	0	0	0

Waste Types	2019		2018		2017	
	Facilities	Tons	Facilities	Tons	Facilities	Tons
Hazardous: Bituminous waste	1	13	1	32	2	279
Hazardous: Solvents without halogens and sulphur	0	0	1	19	2	216
Hazardous: WEEE: Entertainment and consumer electronics and toys, leisure, sports and recreational equipment and automatic issuing machines	0	0	1	0	1	213
Hazardous: Liquids and sludges containing halogens and/or sulphur	1	11	1	12	1	84
General: Plastic	3	69	0	0	0	0
Hazardous: Health care risk waste: Chemical waste	1	87	0	0	1	1
General: Brine	0	0	2	83	0	0
General: Fly ash and dust from miscellaneous filter sources	1	124	0	0	0	0
Hazardous: Sewage sludge	0	0	0	0	1	91
General: Plastic: Other	1	50	0	0	0	0
Hazardous: POP waste: Other POP-containing waste	0	0	0	0	1	44
Hazardous: Mineral waste: Other	0	0	0	0	1	33
General: Metals	3	8	0	0	0	0
General: Paper	2	10	0	0	0	0
General: WEEE: Mixed WEEE	1	14	0	0	0	0



Waste Types	2019		2018		2017	
	Facilities	Tons	Facilities	Tons	Facilities	Tons
General: Glass	1	12	0	0	0	0
Hazardous: WEEE: Office, information, and communication equipment	1	0	1	2	1	0
Hazardous: WEEE: Lighting equipment	0	0	0	0	1	4
Hazardous: Mixed batteries	0	0	1	0	1	1
General: WEEE: Small household appliances	1	2	0	0	0	0
Hazardous: Mercury containing waste: Liquid waste containing mercury	0	0	0	0	1	1
General: Plastic: Polyethylene terephthalate	0	0	0	0	1	1
General: Plastic: Polyvinylchloride	1	1	0	0	0	0
General: WEEE: Lighting equipment	1	1	0	0	0	0
Hazardous: Manganese dioxide and alkali batteries	0	0	0	0	1	0
TOTAL	136.0	4,108,860	113.0	3,007,830	118.0	3,099,232

The relative tonnages provide some context in terms of the annual masses reported. While this approach taken assumes that all waste being disposed of to landfills is reported this is known not to be the case. Also, not all KZN landfills are licensed, nor do all of them have functional weigh bridges, thus compromising the accuracy of the reporting into SAWIS. This adds an element of uncertainty to the SAWIS data which has also been previously reported by other authors (Chagunda, 2019; Williams-Wynn and Naidoo, 2020). Nevertheless, the SAWIS database provides some useful insights into the type of wastes finding their way to landfill which can be aggregated at a provincial or national level. The above uncertainties and data gaps were mitigated based on the project teams experience of conducting seasonal waste characterisation studies within several other metros, KZN municipalities and having access to waste characterisation data from other studies conducted in South Africa.

The data analysis is presented in Table 2 as follows: The average number of facilities reporting was calculated to account for the year-on-year variation (column A). Similarly, the average tonnages reported over the three-year period was calculated and reported in column B). It is therefore concluded that an average of seventeen (17) facilities were disposing an average of 703,373 tones/annum of “General: Municipal waste” over a three-year period (from the 2019, 2018 and 2017). From these two datasets (A and B from the table below) an index of priority (by multiplying column A x Column B for each waste type) could be calculated.

**Table 2: Calculated average (2019, 2018 & 2017) facilities reporting waste types & Tons/Annum**

	Waste Type	A = Average Facilities <sup>23</sup>	B = Average Tons/Annum <sup>24</sup>	INDEX = A x B
1	General: Municipal waste	17.3	703,372.5	12,191,790.0
2	General: Construction and demolition waste	9.7	594,804.8	5,749,779.7
3	General: Commercial and industrial waste	8.0	257,865.6	2,062,925.1
4	General: Metals: Ferrous metal	2.0	563,581.0	1,127,162.0
5	General: Other	6.7	155,549.0	1,036,993.3
6	General: Organic waste	3.7	270,879.2	993,223.7
7	Hazardous: Liquid and sludge inorganic waste	4.7	129,389.4	603,817.4
8	General: Organic waste: Garden waste	8.7	54,083.8	468,726.3
9	General: Slag: Ferrous metal slag	2.0	169,668.2	339,336.5
10	Hazardous: Solid inorganic waste	2.7	73,253.5	195,342.8
11	General: Bottom ash	6.3	30,093.5	190,592.4
12	General: Slag: Non-ferrous metal slag	1.0	170,478.2	170,478.2
13	Hazardous: Miscellaneous	2.7	42,695.1	113,853.6
14	Hazardous: Bottom ash	2.3	34,407.6	80,284.4
15	General: Metals: Non-ferrous metal	1.3	56,501.8	75,335.7
16	Hazardous: Liquid and sludge organic waste	2.3	17,922.8	41,819.9

<sup>23</sup> For 2019, 2018 and 2017.

<sup>24</sup> For 2019, 2018 and 2017.

	Waste Type	A = Average Facilities <sup>23</sup>	B = Average Tons/Annum <sup>24</sup>	INDEX = A x B
17	Hazardous: Fly ash and dust from miscellaneous filter sources: Fly ash	1.7	17,188.7	28,647.8
18	Hazardous: Solid organic waste	2.7	7,729.5	20,611.9
19	Hazardous: Mineral waste: Refractory waste	1.7	9,527.0	15,878.3
20	Hazardous: Solids containing halogens and/or sulphur	1.3	7,825.5	10,434.0
21	Hazardous: Spent pot lining (organic)	1.0	7,716.2	7,716.2
22	Hazardous: Waste oils: Waste oil	1.7	3,535.7	5,892.8
23	General: Organic waste: Food waste	3.7	1,474.9	5,407.8
24	General: Slag: Other	0.7	7,145.6	4,763.7
25	General: Sewage sludge	2.3	1,919.3	4,478.3
26	Hazardous: Lead batteries	1.0	2,131.5	2,131.5
27	General: Plastic: Polypropylene	0.3	4,833.3	1,611.1
28	Hazardous: Mineral waste: Foundry sand	0.7	2,302.2	1,534.8
29	General: Organic waste: Wood waste	1.0	1,297.8	1,297.8
30	General: Mineral waste: Refractory waste	0.3	3,251.5	1,083.8
31	Hazardous: Asbestos containing waste	2.0	296.8	593.5
32	General: Mineral waste: Foundry sand	1.0	462.3	462.3
33	Hazardous: Health care risk waste: Infectious waste and sharps	0.7	513.7	342.4

	Waste Type	A = Average Facilities <sup>23</sup>	B = Average Tons/Annum <sup>24</sup>	INDEX = A x B
34	Hazardous: Mercury containing waste: Solid waste containing mercury	0.7	428.4	285.6
35	General: Tyres	2.0	133.0	266.1
36	Hazardous: Health care risk waste: Pathological waste	0.3	543.7	181.2
37	Hazardous: Bituminous waste	1.3	108.1	144.1
38	Hazardous: Solvents without halogens and sulphur	1.0	78.3	78.3
39	Hazardous: WEEE: Entertainment and consumer electronics and toys, leisure, sports and recreational equipment and automatic issuing machines	0.7	70.8	47.2
40	Hazardous: Liquids and sludges containing halogens and/or sulphur	1.0	35.7	35.7
41	General: Plastic	1.0	23.1	23.1
42	Hazardous: Health care risk waste: Chemical waste	0.7	29.2	19.5
43	General: Brine	0.7	27.7	18.4
44	General: Fly ash and dust from miscellaneous filter sources	0.3	41.2	13.7
45	Hazardous: Sewage sludge	0.3	30.2	10.1
46	General: Plastic: Other	0.3	16.6	5.5
47	Hazardous: POP waste: Other POP-containing waste	0.3	14.7	4.9
48	Hazardous: Mineral waste: Other	0.3	11.0	3.7
49	General: Metals	1.0	2.7	2.7

	Waste Type	A = Average Facilities <sup>23</sup>	B = Average Tons/Annum <sup>24</sup>	INDEX = A x B
50	General: Paper	0.7	3.3	2.2
51	General: WEEE: Mixed WEEE	0.3	4.7	1.6
52	General: Glass	0.3	3.9	1.3
53	Hazardous: WEEE: Office, information, and communication equipment	1.0	0.6	0.6
54	Hazardous: WEEE: Lighting equipment	0.3	1.4	0.5
55	Hazardous: Mixed batteries	0.7	0.3	0.2
56	General: WEEE: Small household appliances	0.3	0.5	0.2
57	Hazardous: Mercury containing waste: Liquid waste containing mercury	0.3	0.4	0.1
58	General: Plastic: Polyethylene terephthalate	0.3	0.3	0.1
59	General: Plastic: Polyvinylchloride	0.3	0.3	0.1
60	General: WEEE: Lighting equipment	0.3	0.2	0.1
61	Hazardous: Manganese dioxide and alkali batteries	0.3	0.1	0.0
	TOTAL	122.3	3,405,307.4	

This is somewhat similar to the process followed by Wekisa & Majale (2020) for their aggregated quality of life index, except for the variables used, and no weighting was applied in this case (no waste streams were favoured using the index). It is logical that if a waste stream is well distributed (i.e., found in many municipalities) then the number of Facilities reporting will be high. Thus, multiplying this high distribution, by a high annual tonnage will produce a large number compared to if both variables were low.

### **2.3. Multicriteria Analysis**

Table 2 presents the results for the calculated index based on the distribution and tonnages of different waste types. This was further assessed based on criteria to ensure that the prioritised shortlist indeed meets the requirements of the study namely, a ubiquitous waste stream, relatively simple to exploit and has available off the shelf technology to implement. This is initially based on a calculated index, and then assessed on a scoring system. This analysis is presented below:

### **2.4. Amount and Distribution**

The highest index (A x B) waste streams in Table 2 would appear to be good candidates for shortlisting. However, it should be noted that a number of these are based on very low distribution waste streams (i.e. tonnages for the fractions of waste being disposed to landfill is very high which leads to a skewing of the index). For instance, “General: Metals: Ferrous metal”, “General: Slag: Ferrous metal slag” were reported by only two facilities in KZN but the annual waste tonnages reported was high; “General: Slag: Non-ferrous metal slag” (reported by one facilities) and “General: Metals: Non-ferrous metal” (reported by one facility). Considering that the SAWIS database is based on the reporting of 18 municipalities, therefore the team took a view that any waste stream with less than 50% coverage (or a nine in column A) would have a questionable distribution and was therefore excluded from Table 2, unless the team knew from prior experience that the opposite was true.

### **2.5. Type of Waste Streams**

The waste types are classified as either being of a general or hazardous in nature. Typically, the more complex the waste type, the more complex its management, capital investment of resources required (technology, permits, licences, handling costs etc) to process these waste streams (DEA, 2011). SMMEs typically will undertake simple processing, which they have an aptitude for. Although it is acknowledged that some innovative SMMEs are adept at exploiting complex and niche markets, this is generally not the case for all SMMEs (Smal, 2008; Scheinberg et al., 2010). More complex tasks (like processing complex waste for instance) require complex skills, and large budgets for capital infrastructure. This can be very expensive for an SMME or cooperative which may have less know-how in managing these complex waste streams. Thus, all waste streams which were classified as hazardous were excluded from the Table 2.

## **2.6. Impacts on Existing Livelihoods**

This selection criterion considers the impact that undue competition from a newly formed waste SMME could have on already existing SMMEs or waste pickers. This would provide an unfair advantage to the new market entrants, especially if this was supported through new SMME's nurtured with public funding. The additional challenge is that the new entrant plus the existing SMMEs or waste pickers would be inadvertently competing for the same waste streams. It is well documented by other authors that in some cases the formation of a new group of market entrants can displace existing players (especially existing SMMEs and waste pickers) from earning their livelihoods (Gugssa, 2012; Chikarname, 2014; Lekhanya, 2016).

Different grades of plastic waste (see "General: Plastic: Polypropylene" in Table 2 are known to be collected by the informal sector. This forms a significant part of their livelihood (Ralfe, 2007; FAO, 2021; Laxmi Haigh et al., 2021). It is also known that recovery of plastics does take place at landfills with poor access control in the province. It is acknowledged that this end-of-pipe solution is not a suitable scenario. To avoid competing with this informal waste picker livelihood which is often linked with small buy back centre SMME, it was decided to exclude plastic waste from consideration. Similarly, "General: Construction and demolition waste" is also known to be widely distributed in the province. However, municipalities are often short of cover material for proper management at their landfills, construction and demolition waste is a suitable substitute to sand and gravel for the working face of the landfill (Nell et al., 2022).

"General: Municipal waste" is well distributed in the province and there are also large volumes of this waste stream. This is disposed of to landfill sites co-mingled and contaminated with different wastes and recyclables. This is also true of waste from the commercial sector (i.e. "General: Commercial and industrial waste") which is similar in character to municipal solid waste (DEA, 2012; Swanepoel et al., 2012; Mutezo, 2015). The recyclables from municipal and commercial and industrial waste are harvested by the informal sector or SMMEs at kerb sides and many landfill sites.



**Table 3: Scoring criteria used**

No	Criteria	Organic Waste	SCORE
1	Availability of Technology	High – Simple Tech options available	3
		Medium	2
		Low – Only complex Tech options	1
2	Barriers to Entry	No Known barriers	3
		Low barriers to entry	2
		High - Considered insurmountable barriers	1
3	Existing markets	National or international	1
		Regional	2
		Local	3
4	Alignment with SDGs	GOAL 1: No Poverty	1/17
		GOAL 2: Zero Hunger	1/17
		GOAL 3: Good Health and Well-being	
		GOAL 4: Quality Education	
		GOAL 5: Gender Equality	1/17
		GOAL 6: Clean Water and Sanitation	1/17
		GOAL 7: Affordable and Clean Energy	1/17
		GOAL 8: Decent Work and Economic Growth	1/17
		GOAL 9: Industry, Innovation, and Infrastructure	
		GOAL 10: Reduced Inequality	
		GOAL 11: Sustainable Cities and Communities	1/17
		GOAL 12: Responsible Consumption & Production	1/17
		GOAL 13: Climate Action	1/17
		GOAL 14: Life Below Water	1/17
		GOAL 15: Life on Land	1/17
		GOAL 16: Peace and Justice Strong Institutions	
		GOAL 17: Partnerships to achieve the Goal	1/17
5	Industrial Symbiosis Opportunities?	Opportunities exist	2
		No opportunities	1
		Impacts negatively on existing relationships	0

It was decided not to ‘cannibalize’ these valuable waste streams, even though it was likely that more cover material than the municipalities could utilize is likely available. Similarly due to the recovery of main line recyclables such as plastics, paper, and cardboard, these were excluded from the selection process and are not considered further. The project adopted a social symbiotic approach was taken in which the livelihoods of other stakeholders was considered (i.e., pickers and SMME which may be dependent on plastics for their survival as well as the municipalities) through this project.

The remaining criteria were scored according to the table above. This is based on the project team’s experience from similar projects conducted in the past – and therefore it is acknowledged that there is some subjectivity in the process.

### **2.7. Availability and Ease of Roll Out of Technology Options**

The type of technology is an important criterion to consider, especially if expertise of how to operate equipment (or technology) is not already present within the SMMEs (Kirchherr et al., 2018). The selection of waste streams with a preference for general rather than hazardous waste categories will to some extent mitigate this, as general waste streams typically require less advanced technology to process. Learning complex new skills requires expensive investments (time and costs) to deliver quality goods to market. In essence, the technology required to add value to the waste streams needs to be simple enough to enable uptake by low skill or inexperienced SMMEs and to deliver the required outputs. Scoring in terms of this criterion was applied depending on the level of complexity of the technology that could be applied. Waste streams where simple technology options are available were favoured (scored 3), higher than a waste types where technology options were complex or expensive (scored 1).

### **2.8. Barriers to Entry**

For some beneficiation opportunities, there may be significant barriers to entry which need to be overcome to enable development and commercialisation. In cases where there are significant barriers to entry, it may be difficult for new SMME entrants. Two main aspects considered here are Legislation and Financial barriers. From a legislative perspective, the need for environmental impact assessments, registration of a waste facility, or the associated compliance requirements could apply. For the financial barriers capital outlays required for licencing, availability of a clean feedstock or processing costs could be relevant. The waste stream to be selected/prioritised should have minimal barriers to entry for new SMME entrants. This criterion was scored based on either no known barriers (score 3), low barriers (score 2) or the potential for insurmountable barriers to entry (score 1).

### **2.9. Potential Market Types**

Availability of markets is critical for the establishment of a successful SMME. Transportation is a significant cost component of waste management and is therefore a

critical factor in the success or failure of an SMME (Olawale and Garwe, 2010; Business Environment Specialists, 2014). The transport costs must be balanced with the relative value of the material being transported. Therefore, processing of waste should ideally be done as close as possible to the source of generation. Although the final processed product is likely to be of higher value compared to unprocessed waste, the end market should also ideally be in close proximity. Distance to potential markets will be used to assess the waste value adding opportunities for SMMEs. If the waste is produced far away (i.e., provincial, national, or international), this could potentially be detrimental to the utilisation of the waste stream by the SMME. For example, the producer of the waste can also be the market for the product(s) or by products (electricity in the form of gas etc.). This creates a “win-win” scenario that reduces transport and other transaction costs. This can also be extended to incorporate other institutions or organisations operating within the local area. This criterion was scored based on the existence of suitable markets. Where local offtake markets exist, this was scored higher. While international markets may be lucrative for an experienced SMME, entry into this arena could be a challenge (and complex supply chains) for new entrants, the team decided that it would be better to first create local value which is less prone to complex market fluctuations. This criterion was scored based on either known international markets (score 1), regional markets (score 2) or local markets (score 3).

### **2.10. Alignment to Sustainable Development Goals (SDGs)**

Sustainability objectives (i.e., environmental, social, and economic impacts) were considered and evaluated based on the team’s experience. A brief discussion of what these goals entail may be found in the voluntary review document commissioned by the Presidency (RSA, 2019). The final choice of waste stream should be evaluated based on how the project will contribute towards meeting the SDGs. If the beneficiation of the waste stream could contribute towards the realization of an SDG, this was scored positively. The more SDG’s it could contribute to the higher the score. In order not to weight the decision-making process in favour of SDGs, each SDG was scored as a single point, the total points were then divided by 17 (17 SDGs). If the waste stream could lend itself to a goal, it received a score of 1/17 for each goal.



Figure 1: The Sustainable Development Goals<sup>25</sup>

### 2.11. Potential for Symbiotic Relationships

The opportunity to leverage symbiotic relationships was considered. Opportunities to develop mutually beneficial relationships was assessed, these could include a Broad-Based Black Economic Empowerment program (RSA, 2013). This could be between a large private company or a public sector institution (i.e., schools or hospitals) which produces a waste and an SMME. The waste producer can offset its disposal costs (i.e., transportation and landfill gate fees) by diverting this waste to a local SMME. The SMME could benefit from mentorship, access to a ‘free’ or subsidised source of raw material to use in its processes. This symbiosis between a manufacturer or industry and an SMME could have multiple benefits and widespread impact if the waste stream in question is easily available in the province and well distributed. Scoring was assigned based on the likelihood of opportunities for a symbiotic relationship (score 2), no likely opportunities (score 1) or the possibility for negative impacts (score 0).

### 2.12. Short Listed Waste Streams

Table 2 revealed several waste streams which were well distributed throughout the province. However, a number of these were excluded due to the likelihood of having a poor spatial distribution as well as already being utilised by other stakeholders for their livelihoods. After assessing the remaining waste streams based on the multiple criteria in section 2.3, a short list of possible waste streams remained. Of the eight items on this list, six are of organic origin. This includes the waste stream labelled as “General: Other” which is reported as including “biomass waste from industry” (DEA, 2012).

Note that initially “General: Organic waste: Food waste”, “General: Sewage sludge”, and “General: Organic waste: Wood waste” were excluded from consideration, however it is known that these waste streams are indeed well distributed in the province. It is therefore likely that this is a deficiency of the SAWIS database. Therefore, these items are included in the final listing below.

<sup>25</sup> <https://www.un.org/development/desa/disabilities/envision2030.html>

The below waste streams (including the 6 aggregated organic wastes) were subjected to one final set of analysis. These items were scored using the system described in section 2.3 under the different criteria. The results are presented below in the results section.

**Table 4: Summary of shortlisted waste streams**

	Waste Type	A = Average Facilities <sup>26</sup>	B = Average Tons/Annum <sup>27</sup>	INDEX = A x B
1	General: Other <sup>28</sup>	6.7	155,549.0	1,036,993.3
2	General: Organic waste	3.7	270,879.2	993,223.7
3	General: Organic waste: Garden waste	8.7	54,083.8	468,726.3
4	General: Bottom ash	6.3	30,093.5	190,592.4
5	General: Organic waste: Food waste	3.7	1,474.9	5,407.8
6	General: Sewage sludge	2.3	1,919.3	4,478.3
7	General: Organic waste: Wood waste	1.0	1,297.8	1,297.8

<sup>26</sup> For 2019, 2018 and 2017.

<sup>27</sup> For 2019, 2018 and 2017.

<sup>28</sup> This is biomass waste from industry.

### **3. Results and Discussion**

In terms of achieving the SDG organic waste streams achieved the higher score. Both bottom ash and organic waste fractions could contribute to job creation opportunities (goal 1) and hence the alleviation of poverty, Sustainable Cities and Communities (goal 11), Responsible Consumption and Production (goal 12), Climate Action (goal 13), better life above land (goal 16) and opportunities for symbiotic relationships (goal 17). Organic waste have the potential to contribute to agricultural applications hence contributing to goal 2 and goal 3 (Nottingham, 2012; Pretorius, 2014; Haburukundo, 2019). Both waste fractions could contribute to decent work (goal 8) and be benefited by both men and women (goal 5). Anaerobic process utilising organic wastes in combination with sewage sludge could contribute to better management of water sources (goal 6 & goal 14) which can also assist with local energy sources (goal 7) from the anaerobic processes (Cantrell et al., 2008; Nzila et al., 2010; Tumwesige, Fulford and Davidson, 2014).

Table 5 presents the final scoring of the two main waste streams. A large proportion of these are organic waste fractions and are therefore represented under this broad category of organic waste streams. Based on the scoring, organic wastes were prioritised for beneficiation by SMMEs in the next stages of the project (score of 12,824 versus Bottom ash with a score of 11,529).

Considering the different types of organic waste, several simple off the shelf technology options exist for the different organic fractions. Some of these include composting of the woody organic waste fractions (van der Merwe et al., 2009; Couth and Trois, 2012) and relatively simple anaerobic digestion of food waste fractions (Kumar and Bharti, 2012; DEA, 2015). A number of options to utilise bottom ash depend on the processing, the input waste quality and existing regulations – this applies to bottom ash use in block manufacture, soil amelioration, as a concrete extender, for road construction, or fill material (DME, 2005; Hallows and Munnik, 2017). Recently Eskom applied for approval to the DFFE to exclude bottom ash from the definition of waste. Although there are no coal fired power stations in KZN it could be argued that a similar process could be undertaken for other large producers of bottom ash (RSA, 2019, 2020c; Eskom, 2021; Godfrey, 2021). Because of this potential national legal barrier for approved sources of bottom ash (RSA, 2020c) this opportunity was scored lower than organic waste fractions which have a relatively less rigorous and onerous approval process and are dependent on local site specific conditions. Both bottom ash and the different organic waste fractions could find local market applications and were scored the maximum of three (3) for this criterion. This is significant because transport costs could render many waste beneficiation projects unviable (Hatton, 2002).

In terms of achieving the SDG organic waste streams achieved the higher score. Both bottom ash and organic waste fractions could contribute to job creation opportunities (goal 1) and hence the alleviation of poverty, Sustainable Cities and Communities (goal 11), Responsible Consumption and Production (goal 12), Climate Action (goal 13), better life above land (goal 16) and opportunities for symbiotic relationships (goal 17). Organic waste have the potential to contribute to agricultural applications hence contributing to goal 2 and goal 3 (Nottingham, 2012; Pretorius, 2014; Haburukundo, 2019). Both waste fractions could contribute to decent work (goal 8) and be benefited by both men and women (goal 5). Anaerobic process utilising organic wastes in combination with sewage sludge could contribute to better management of water sources (goal 6 & goal 14) which can also assist with local energy sources (goal 7) from the anaerobic processes (Cantrell et al., 2008; Nzila et al., 2010; Tumwesige, Fulford and Davidson, 2014).



**Table 5: Final Scoring**

No	Criteria	Finding	Potential Score	Bottom Ash	Organic Waste
1	Availability of Technology	High – Simple Technology options available	3	3,00	3,00
		Medium	2		
		Low – Only complex Technology options	1		
2	Barriers to Entry	No Known barriers	3		3,00
		Low barriers to entry	2	2,00	
		High - Considered insurmountable barriers	1		
3	Existing markets	National or international	1		
		Regional	2		
		Local	3	3,00	3,00
4	Alignment with SDGs	GOAL 1: No Poverty (1/17)	0,06	0,06	0,06
		GOAL 2: Zero Hunger (1/17)	0,06		0,06
		GOAL 3: Good Health and Well-being (1/17)	0,06		0,06
		GOAL 4: Quality Education (1/17)	0,06		
		GOAL 5: Gender Equality (1/17)	0,06	0,06	0,06
		GOAL 6: Clean Water & Sanitation (1/17)	0,06		0,06
		GOAL 7: Affordable & Clean Energy (1/17)	0,06		0,06
		GOAL 8: Decent Work and Economic Growth (1/17)	0,06	0,06	0,06
		GOAL 9: Industry, Innovation & Infrastructure (1/17)	0,06		0,06
		GOAL 10: Reduced Inequality (1/17)	0,06		
		GOAL 11: Sustainable Cities & Communities (1/17)	0,06	0,06	0,06
		GOAL 12: Responsible Consumption & Production (1/17)	0,06	0,06	0,06
		GOAL 13: Climate Action (1/17)	0,06	0,06	0,06
		GOAL 14: Life Below Water (1/17)	0,06	0,06	0,06

		GOAL 15: Life on Land (1/17)	0,06	0,06	0,06
		GOAL 16: Peace & Justice Strong Institutions (1/17)	0,06		
		GOAL 17: Partnerships to achieve the Goal (1/17)	0,06	0,06	0,06
5	Opportunities for symbiotic relationships	Opportunities exist	3	3,00	3,00
	(BBBEE in Industrial Symbiosis)	No opportunities	2		
	Impacts negatively on existing livelihoods		1		
			TOTAL	11,529	12,824

#### 4. Conclusion

This study found that there are opportunities for SMME's and cooperatives in KZN to utilize several relatively unexploited organic waste streams, including biomass, food, wastewater sludge and garden waste. These waste streams were found to be relatively widely distributed and underutilized throughout KZN. Several sources for these organic wastes include institutions such as fresh produce markets, commercial agricultural sources, schools, hospitals, and prisons. Off the shelf, relatively simple treatment technologies can be utilized for these under-exploited wastes.

The study noted the general finding from other authors which indicated the poor separation at source of co-mingled waste streams, which presents a challenge to any beneficiation project.

There is also a need for improved reporting on the SAWIS database (by both private sector entities and municipalities); in terms of both the coverage and quality of information reported by waste type. This could improve the quantity and quality of waste management data available for discussion making.

The appropriate organic waste treatment method is dependent on the specific organic waste fraction. For instance, composting can be utilised for woody and heavily lignified garden wastes, while anaerobic digestion could be utilised for food waste fractions and less lignified organic waste fractions. Both technologies are available for a relatively small up-front investment required for set up, are easily scalable, and have relatively low skills requirements, ideally suited for an SMME. Different composting technologies are also available which provides opportunities for small-scale, large scale, in-vessel, and open windrow type operations.

A top-down approach to SMME (or cooperative) development is not advisable due to the likelihood of failure. Therefore, SMMEs (and cooperatives) which are already established and have a proven track record in the waste management space should be prioritised for implementation. The first prize is if such enterprises are already operating as either composters or possibly utilizing small scale anaerobic digestion.

Other waste streams that are known to be well distributed throughout KZN are bottom ash (although legislative barriers need to be overcome), as well as construction and demolition waste, although some of this is currently being used for cover material on landfill sites. Other opportunities including glass waste (from MSW sources) with low technology processing could also be explored, however this excludes bottle to bottle reuse because there is no bottle plant in KZN, and the transport costs are likely to make any such enterprise uneconomical. Other opportunities for re-use include the construction sector, where crushed glass could be utilized as a filler for cement for compacted earth bricks, or for sandblasting.

Uptake of the identified opportunities could be facilitated through funded feasibility studies which will provide the required information for SMMEs to make informed decisions on technology choices and preferred location of the identified feasible opportunities.

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the CSIR. This study is a part of the Industrial Symbiosis Programme that NCPC-SA is running in South Africa, which considers various waste streams as resource potential. In addition, the programme also looks to identify bankable green business opportunities within the waste sector. This project is therefore also aligned with identifying opportunities for SMMEs and cooperatives in KZN.

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## "Keeping co-operatives data relevant and useful: Whose responsibility is it? "

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### Abstract

Co-operatives are important in society; they strengthen democracy and encourage civil society to actively engage in economic, social and political affairs. Co-operatives have been found to provide numerous benefits to communities and have a significant positive impact on the economy. The top 300 co-operatives worldwide have a combined turnover of more than USD 1.9 trillion (Brown & Novkovic, 2015). Co-operatives have over 1 billion members and clients. Co-operatives are locally owned and operated enterprises. At at least four countries national level, the co-operative economy contribute over 10% of the Gross Domestic Products (GDP); these countries are New Zealand (20%), Netherlands (18%), France (18%) and Finland (14%) (UN, 2014) respectively. A qualitative study was conducted to determine how government departments, government implementing agencies and the national apex co-operative in South Africa maintain databases of co-operatives that they deal with. The second objective of the study was to ascertain whether the database-maintained assist in monitoring the contribution that co-operatives were making to the economy of the province and the economy of the country. Purposive sampling was applied in selecting government departments that support and develop co-operatives. An in-depth interview was conducted with a total of eight directors at national (3) and provincial (2) government departments, government implementing agencies (2) a national apex co-operative (1). A thematic data analysis was performed. The findings revealed that uncoordinated data and information on co-operatives were maintained separately by several institutions involved in co-operative support programmes. The database kept is only relevant to the needs of specific government departments and was not easily available to the public. The study recommended that a census of co-operatives in South Africa be carried out and that this information must be kept live. It is also recommended that a uniform reporting on activities of co-operatives with a coordinated system of channelling information about co-operatives be established. Lastly, it is recommended that the CIPC revamp its current information and make it transparent and accessible to all stakeholders to benefit the country's economy.

**Keywords:** co-operative database, co-operative census, co-operative statistics

### 1. Introduction

Co-operatives around the world contribute significantly to providing employment. Data from 156 countries reflect that co-operatives employ at least 279.4 million people globally, which is 9.46% of the world's employed population (Eum, 2017). However, data on co-operatives are not perfect, they are collected for different purposes with little concerted efforts at times to produce comprehensive data sets. Researchers and practitioners argue for

this gap to be filled to enable accurate studies and reports on the impact of co-operatives on their socio-economic environment (Brown & Novkovic, 2015).

Global mapping of the available national statistics revealed uneven processes of data collection, lack of a single legal and operational definition being used, and classification of co-operatives in terms of sector, size and type that does not, in most cases follow any internationally recognised standards.

ILO Resolution No. 193 in 2002, concerning the promotion of co-operatives, carried out developmental work on the measurement of co-operatives, number and characteristics of co-operatives, members of co-operatives; members and workers employed by co-operatives and value added by co-operatives. In addition, paragraph 8 of ILO Recommendation No. 193 of 2002, encourages governments to corroborate national policies, and "seek to improve national statistics on co-operatives with a view to the formulation and implementation of development policies".

## **2. Global Census on Co-operatives**

The first-ever Global Census on Co-operatives was completed in 2013-14 with data from 145 countries worldwide. The census was a count of co-operatives in as many countries as possible regardless of their sector or membership in regional/global associations (Aciamericas.coop 2014; UN, 2014). The census revealed the existence of 2.6 million co-operatives globally, with over 1 billion members/clients, this reflected that 1 in every 6 people in the world has membership or is a client of a co-operative. Co-operatives globally generated USD 3 trillion in annual revenue. The census reflected the global size and impact of the international co-operative system (Aciamericas.coop, 2014; UN, 2014).

The Global Census on Co-operatives obtained their data from the national level surveys, and from deliberations with sector and national associations charged with establishing co-operatives, such as the International Cooperative Alliance (ICA), World Council of Credit Unions (WOCCU), and International Cooperative and Mutual Insurance Federation (ICMIF) (Aciamericas.coop, 2014).

The outcome of the Global Census on Co-operatives led to the development of a Co-operative Economy Index based on the membership and employment in relation to the country's population and the co-operative sector's annual revenue with respect to Gross Domestic Product (GDP). The Co-operative Economy Index provides a single, even though oversimplified, determinant of the most co-operative economies globally (Aciamericas.coop, 2014).

The 2014 Global Report categorised work and employment forms found in co-operatives as employees, worker-members, and self-employed producer-members. The distinction between the key classifications led to the identification of types of impact made by co-operatives on employment.

A follow-up report to the 2014 Global Report was completed in 2017. While the 2014 Global Report clarified the quantitative importance of co-operatives in work and employment globally, the focus of the Second Global Report on Co-operatives and employment 2017, was on understanding the various aspects of work and employment in co-operatives (Eum, 2017).

Using the information from the 2014 Global Report and with an addition of a few new countries, a wider coverage was provided, utilising data on 156 countries. The 2017 Global

Report updated the 2014 report by a) providing an update on the quantitative information on co-operative employment worldwide; b) submitting conceptual tools with the view to processing reliable information on work and employment in co-operatives; c) examining the contribution of co-operatives to work and employment in informal employment and in the new forms of work (Eum, 2017).

Further work done involved guidelines concerning statistics of co-operatives, which were adopted at the 20<sup>th</sup> International Conference of Labour Statisticians (ICLS) in October 2018.

According to United Nations' Sustainable Development Goals (SDG) (2015), co-operatives play a significant role in eradicating poverty, protecting the environment, and ensuring everyone lives in peace and prosperity. These goals are to be attained by 2030 and progress towards achieving them must be periodically assessed (Gamze & Çalıyurt, 2021). However, concerns on the attainment of the SDG goals lagging were raised before the COVID-19 pandemic started. Furthermore, the timespan for the accomplishment of SDGs entered the "Decade of Action" up to 2030, but the SDGs are far from being on track (Shulla, Voigt, Cibian, et al., 2021).

The compilation and analysis of statistics on co-operatives in many countries rely on administrative information emanating from co-operative registers. In South Africa, such statistics are held by the Companies Intellectual Property Commission (CIPC). The Companies and Intellectual Property Commission is an agency of the Department of Trade and Industry in South Africa whose main responsibility is the registration of companies, co-operatives and Intellectual Property Rights (trademarks, patents, designs and copyright) and maintenance thereof. Although administrative information is a crucial source of statistics, the administrative information tend to exclude pertinent information relating to membership of co-operatives or the number of workers employed in co-operatives.

Household surveys, another way of gathering information on co-operatives, could provide a rich source of economic and social data on the current activities and challenges of co-operatives. Though household survey-based information can be used to analyse relationships between economic sectors, types of co-operatives, and characteristics of workers, they are limited in producing accurate statistics on the number of co-operatives or their economic value (Brown & Novkovic, 2015). The compilation of co-operative data cannot be exclusively reliant on administrative information or household surveys only, the blending of information is needed.

### **3. A lens on South African co-operatives**

Surveys on co-operatives in South Africa, though not a frequent occurrence, have been carried out before. A survey conducted by the National Co-operative Association of South Africa in 2001 (NCASA, 2002) concluded that the highest number of registered co-operatives was in the agricultural sector at 25%, the services sector followed at 17%, and the rest were in the multipurpose sector, which constituted 14% of registered co-operatives.

The spread of co-operatives in townships around urban centres was the same as in rural settings (NCASA, 2002). Satgar (2007) and Theron (2008) found KwaZulu-Natal and the Eastern Cape to have the highest percentage of trading co-operatives (68%). Later, the survey conducted by the DTI in 2009 found a total number of 43 062 co-operatives spread nationally. The highest number of co-operatives (26%) were registered in KwaZulu-Natal

(KZN) and was followed by 20% in Gauteng where the majority were found in Johannesburg (37%), Pretoria (12%) and Vaal (3%) mostly in urban and peri-urban areas. Mpumalanga had 8%; North-West, 7%; Limpopo had 6% and the Western Cape had 5% co-operatives. The NCASA study did not cover North-West, Limpopo and Northern Cape, as a result, comparative information in terms of the distribution in the regions was not available.

In his study, Satgar (2007) found statistics on co-operatives in South Africa to be unreliable and problematic because of the failure of the CIPC to a) to suitably classify co-operatives according to the Co-operatives Act 14 of 2005; b) failure to distinguish between primary, secondary and sectoral co-operatives as per Act 14 of 2005. The data on conversions of co-operatives to companies was not captured; c) unavailability of contact information on co-operative members making it difficult to verify the existence of co-operatives; d) the difficulty in confirming whether the co-operatives are engaging in co-operative activities, and e) information received did not reflect the submission of annual financial statements by co-operatives as stipulated by Act 14 of 2005. It must be noted though that, the introduction of the Protection of Personal Information (POPI) Act, 2013, which amongst others regulates the manner in which personal information may be processed, will make certain information regarding members of co-operatives not easily accessible for verification (POPI Act, 2013).

The NCASA (2002) survey went further to highlight the revenue contributed by co-operatives, they generated approximately R1.7 billion in 2001. The greater portion of this income, R136 million per month, was derived from the nine mainly white-owned wine co-operatives based in the Western Cape. Other co-operatives not in the wine sector contributed R84 million per month to the GDP of the country. The survey highlighted that 40% of the co-operatives surveyed did not produce revenue for their members. According to the survey, co-operatives in subsistence farming, arts, baking, craft, catering, educare and clothing were earning almost R 2000 per month and were amongst the poorest. Less than 20% depended on grants from the government and donors. There has not been any further research of a similar nature in South Africa since the survey of NCASA (2002) and later information provided by the Department of Trade and Industry (DTI, 2012) for the co-operative strategy.

Various institutions are involved in co-operative support programmes in South Africa. As a result, the data and information on co-operatives are held in an uncoordinated manner by various institutions. These institutions include various national, provincial and local government departments and the government implementing agencies involved in the support of co-operatives, the co-operative apex bodies, Co-operative and Policy Alternative Centre (COPAC), tertiary institutions, the German Co-operative and Raiffeisen Confederation (DGRV) and the NGOs. This complicates having an overview and the planning of interventions for co-operatives (Twalo, 2012) unless the Department of Small Business Development (DSBD), a government custodian of co-operatives, co-ordinates the data efficiently.

Satgar (2007) believes that the emergence of various government-linked institutions supporting co-operative development and policy constitute the strength of the emerging government support system. However, their work needs to be collaborated. In the event of the DSBD failing to collaborate co-operative information, the Cooperative Development Agency, as introduced in the Cooperative Amendment Act of 2013, which is still to be

established, could consolidate the representation from various institutions promoting co-operatives and from co-operative movement structures.

One of the objectives of the Co-operatives Development Agency in terms of Section 91B (d) of the Co-operative Amendment Act No. 6 of 2013 is to offer support to the registrar for the registration and de-registration of co-operatives while Section 91C (d) (v), makes provision for the Co-operative Development Agency to "assist the registrar of co-operatives in maintaining and updating the co-operative database and registration database". Clearly, the registration of co-operatives and related data capturing, and maintenance remains the responsibility of the CIPC. Co-operative Amendment Act No. 6 of 2013 came into operation on 1 April 2019, eleven months before the onset of COVID-19 pandemic, this could signal a further delay in the implementation of salient aspects of the Act.

#### **4. Why measure and monitor co-operative data?**

It is an onerous task to determine how to support or aid co-operative development without reliable data on the size and impact of co-operatives. According to Brown and Novkovic (2015), statistics are crucial in realistically quantifying the overall size, role and potential of the co-operative sector. It is also equally important to show that a valid model exists that is different from the for-profit model dominant in today's global economy. Developing such an estimate requires effort to define the target population, and the most appropriate data collection tools and identify and define the key indicators for the assessment of co-operatives' impact on the economy and society. Statistics on co-operatives, become important in quantifying, clarifying and analysing the impact they have on their owner-members, how different business models impact communities and workers, as well as the contribution to the economy.

Such statistics will include a) the number of co-operatives and their characteristics; b) the number of members of co-operatives, the number of workers engaged in co-operatives and their characteristics; c) statistics on the value of production by co-operatives (Brown & Novkovic, 2015).

A further reason why data on co-operatives are crucial relates to the advocacy role played by the International Cooperative Alliance (ICA). ICA relies on an accurate quantitative and qualitative volume of evidence of the global co-operative economy in carrying out its advocacy role on behalf of co-operatives. Its advocacy role is complemented by applicable methodologies utilised to gather and analyse data, the indicators, metrics, and the approaches of co-operatives, what influences co-operative behaviour, and how performance in non-co-operative sectors is assessed.

Apart from the ILO, ICA works with the World Co-operative Monitor which is responsible for assembling vigorous economic, organisational, and social data about co-operatives, mutual organisations and non-cooperative enterprises controlled by co-operatives globally. The World Cooperative Monitor 2018 was the only report of its kind designed to collect annual quantitative data on the global co-operative movement (Monitor, 2018).

Several factors inhibit the easy collection of co-operative data. Nembhard (2015), highlighted that identifying benefits offered by co-operatives is different and more difficult from measuring impacts, significant effects or consequences made by co-operatives from the contacts or relationships. Inter co-operation and interconnections between co-operatives pro-

duce multiplier effects, co-operative businesses often help create other co-operatives by donating money to co-operative revolving loan funds, and/or investing in co-operative development.

What is of most concern is how to embrace the principle of concern for the community; in business terms, corporate social responsibility (CSR) and incorporate a blueprint of understanding and handling relationships that engage external stakeholders in actions of the co-operative, while respecting the control that members/workers exercise on the enterprise. Of equal importance also is that accounting and reporting can enhance performance and co-operative social responsibility (Brown & Novkovic, 2015).

The need to standardise, harmonise and coordinate data for comparability--the "data challenge"-- occurs in most sectors and is therefore not unique to co-operatives. In the co-operative sector, the ICA carries out the significant role of developing, guiding, and driving a strategic approach to statistical data and research on co-operatives without dictating the trends of research and methodologies. ICA partners with the ILO who allows for the development of international statistical standards, while the Alliance rallies its members, which includes federations of co-operatives at the national level to support data collection efforts (Brown & Novkovic, 2015).

A study conducted by Diaz-Foncea and Marcuello (2015) on statistical data sources on co-operatives in Spain, a country with a long co-operative tradition, reflected that such data was available mainly at the macro level and no micro-level data is available on co-operative firms to conduct generalisable studies of their internal structures.

Micro-level data were provided by company censuses or surveys that included the legal form of co-operatives such as the Commercial Registry, Survey of Industrial Strategies and Promoting Production, which was biased toward large co-operative firms. Furthermore, the variables they present were unsuited to the reality of these organisations. Regional and state registries of co-operatives, whose tasks were to collect individualised accounting data on these organisations, did not computationally and publicly record such data nor update them annually, as they should. (Diaz-Foncea & Marcuello, 2015).

This study further revealed that available statistics are rarely differentiated by the type of co-operative and made it difficult to research specific models of co-operatives, analyse idiosyncratic characteristics and specify behaviours that occur in a certain type of co-operative. Lastly, the most common sources of data were in the form of non-readable information using common statistical analysis software which was not conducive to the study conducted.

## **5. Tools used in measuring the performance of co-operatives**

The "co-operative way" of doing business separates co-operatives from investor-owned counterparts and may position them well to meet the objectives of responsible organisations. According to Brown and Novkovic (2015), responsible organisations meet three categories namely; (a) sustainability performance; (b) responsibility performance; and (c) ethics performance. However, the question is, how to ascertain that co-operatives are delivering on the "co-operative difference", which include democratic governance and transparency (Brown & Novkovic, 2015).

Brown and Novkovic (2015) acknowledge the many tools available for co-operatives to measure and report on their practices, but they believe a need exists to blend the theoretical and empirical research on the topic of co-operative social responsibility and accountability

and performance measurement. Co-operatives should measure the effect of the co-operative form of business, and gauge what this means in their communities.

Several co-operatives have been using the AA1000 Assurance Standard (AA1000 AS) and Global Reporting Initiative (GRI) that are also widely used by big businesses (Brown & Novkovic, 2015). AA1000 Assurance Standard (AA1000 AS) is a standard for assessing and strengthening the credibility and quality of an organisation's social, economic and environmental reporting (Nefconsulting, 2021).

According to Gamze and Çalyurt, (2021), the Global Reporting Initiative (GRI) guidelines used in sustainability reporting is justifiable for almost all sectors. Sustainability reporting is an intermittent and voluntary assessment and public disclosure relating to sustainability information that presents the enterprise's economic, environmental, and social efforts and advancements to both internal and external stakeholders, as well as appraise the progress of the sustainability of the enterprise. However, Gamze and Çalyurt (2021) found sustainability reporting practices in co-operatives not sufficient and that a gap exist in the literature regarding on how co-operatives engage in sustainability reporting.

The study commissioned by the ICA on the Social and Environmental Indicators and Tools for Co-operatives appraised the nature of social, environmental and sustainability impact indicators and tools utilised by the top 50 of the Global 300 co-operatives (ICA, 2016). The findings revealed that most co-operatives are not using tools of this nature to track non-financial indicators. Those that were engaging tools were using ones that were designed for investor-owned companies, such as GRI, AccountAbility, LEED, and UN Global Compact (ICA, 2016). That study further revealed that fifteen co-operatives used tools that were predominantly proprietary, and therefore could only be used by the co-operative that designed them. Such tools often did not include metrics, were not standardised and were focussed mostly on social indicators, but they often did have a close connection to the co-operative principles (ICA, 2016).

## **6. Aims and Objectives**

The objective of the study was to determine how government departments, government implementing agencies and the national apex co-operative in South Africa maintain databases of co-operatives that they deal with. The second objective of the study was to ascertain whether the database-maintained assist in monitoring the contribution that co-operatives were making to the economy of the province and the economy of the country.

## **7. Materials and methods**

This qualitative study established how government departments, implementing agencies and the national apex co-operative maintain and monitor the databases of the co-operatives they deal with. This forms part of the bigger study where 15 co-operatives were identified by directors of the government departments for inclusion in the study and later interviewed. However, this report focused only on the in-depth interviews with the directors of selected government departments and implementing agencies at national and provincial levels. Due to limited funding, none of the directors at local government level were included in the study. Ethical clearance to conduct the study which was funded by the National Research Foundation was issued by the University of the Western Cape. The participants in the study were protected by the confidentiality clause.



Not all government departments are involved in the development and support of co-operatives. Purposive sampling was applied in selecting government departments that support and develop co-operatives. An in-depth interview was conducted with a total of eight directors at their offices: national (3) and provincial (2) government departments, government implementing agencies (2) a national apex co-operative (1). A thematic data analysis based on Creswell's (2013) analysis model which follows various stages that are interrelated was applied. These stages included, preparing the data, segmenting sentences into categories, summarising the information under specific themes in detail, and interpreting and giving meaning to the data.

## 8. Main findings

The findings revealed that, in South Africa, uncoordinated data and information on co-operatives were maintained separately by several institutions involved in co-operative support programmes. These institutions include but are not limited to national, provincial and local government departments and their implementing agencies, NGOs, private organisations and educational institutions. The (DSBD, the government custodian of co-operatives, maintains a memorandum of understanding (MOU) with various government departments and the private sector that supports co-operatives.

The government department that is the custodian of co-operatives does not have a database of co-operatives; however, their implementing agency has an organised database of co-operatives that they support, some of which they have assessed and produced written reports from which the researcher chose the suitable ones for inclusion in the study.

The custodian of co-operatives relied on the CIPC despite being aware that the information from the CIPC was not user-friendly and reliable. When asked about successful co-operatives in their database, the director interviewed responded, *"I can run a query and see how many co-operatives were formed, just after 1994, they should be very few. Many co-operatives were formed during the last 4 to 5 years. I can run a query and let you know which ones"*. It is important to note that this director never sent the information he promised.

The same question attracted a different response from another government department, *"We do have a database, like what Mr Vax (pseudonym) did, he put some of the co-operatives here, these are some of the national projects that we were doing – we can just print this database and email it to you"*. The database that this director referred to was accessible on their website. They easily recommended co-operatives for inclusion in the study.

The second national government department indicated that they only kept a database of the co-operatives that they have profiled. They linked these co-operatives to resources and thereafter measured the impact brought by linking these co-operatives to resources. They were implementing the strategy which they introduced in 2015, and they were yet to carry out the impact assessment. Prior to the 2015 strategy, they funded co-operatives but not any longer.

The national apex body did not appear to be keeping a proper database of their affiliates. It was the only co-operative apex body in the country and has not positioned itself as the first port of call for the information needed on the status of co-operatives in the country. When asked about successful co-operatives the director in the apex body interviewed responded, *"So, there are many co-operatives that are successful, but I need to get the names of the places*



*where they operate from*". Despite the director reporting the 30 000 - 40 000 co-operatives affiliated to them, a large number which they found challenging, the director interviewed could not easily find successful co-operatives from their database to recommend for inclusion in the study. The names of co-operatives were suggested only when approached for the second time.

The third national government department maintained a sophisticated online system called CODA, the Co-operative Data Analysis <http://webapps.daff.gov.za/codas/> accessible only to their stakeholders. The director interviewed was versatile and knowledgeable and had information at his fingertips regarding the co-operatives they supported, so he was able to easily suggest successful co-operatives to interview.

The database of co-operatives maintained by the CIPC is not reliable. As a result, it is not known how many active co-operatives there are, and this could make the budgeting process of the co-operative custodian national government department difficult.

The findings revealed that the database kept by government departments and implementing agencies supporting co-operatives, including the national apex co-operative, is not easily available to the public. Furthermore, the database kept is only relevant to the needs of specific government departments, with no uniformity across government departments. Along a similar vein, the information kept by the CIPC, the registrar of co-operatives is not reliable nor user-friendly and does not provide information useful to stakeholders.

## 9. Discussions

The objectives of the study were to establish the nature of the database of co-operatives that the government departments or their implementing agencies maintain as well as to ascertain whether the database-maintained assist in monitoring the contribution that co-operatives were making to the economy of the province and the economy of the country.

Lack of vigorous and collective effort in producing comprehensive data sets on co-operatives caused by the fact that co-operative statistics are compiled for different purposes leads to imperfect data on co-operatives. Furthermore, in measuring the impact of the co-operative form of business, co-operatives need to assess what their business means in their communities.

Obtaining statistics on the social economy and the co-operative sector required immense resources in time and money as revealed in the study carried out in Spain (Diaz-Fonca & Marcuello, 2015). Statistics South Africa (StatsSA) the national statistics agency of South Africa established under the Statistics Act (Act No. 6 of 1999) produce timely, accurate and accessible official statistics that can assist in providing co-operative data. The extent of their resources is reflected by frequent reports on among others, the living conditions, sustainable development goals, the economy, municipalities and many more (StatsSA, 2021).

Statutory bodies with important enterprise information include SARS and the National Treasury. It is mandatory for enterprises in South Africa including co-operatives to file annual returns. SARS is the legislatively authorised controlling entity for statistics on the importation and exportation of goods. The National Treasury and SARS together issue tax statistics annually. These aggregated statistics which emanate from SARS' registers of taxpayers and tax returns, complement other published social and economic data (SARS, 2021).

National Apex bodies such as the National Co-operative Association of South Africa (NCASA) played a pivotal role in surveying co-operatives before. However, national apex bodies in South Africa do not live long enough to continue with this important role. NCASA was launched in 1997 through the initiative funded by the Canadian Co-operative Association in support of the ICA and the new democratic African National Congress (ANC) government. According to Philip (2003), fatal mistakes committed in the organisational form and roles led to the demise of NCASA as a National Apex Body in 2002. This led Satgar (2007) in believing that NCASA was an organisation that evolved in a top-down way and set a mould that culminated in the failure to establish proper provincial structures. The South African National Apex Co-operative (SANACO) formed in 2010 played the role of national apex body until 2019 when the Co-operative Amendment Act of 2013 was signed into law did not have the same agenda as NCASA.

Some government departments, nationally, provincially and at the local level have signed an MOU with the DSBD to develop and support co-operatives, as a result, they have critical co-operative information. Information and data on co-operatives were available in an uncoordinated fashion. The findings further revealed that in South Africa, the co-operative data maintenance and reporting remain the responsibility of the CIPC.

## 10. Conclusions of the study

The legislation on co-operatives, Co-operative Act No. 14 of 2005 as amended in 2013, in South Africa puts the registration, and de-registration of co-operatives in the hands of CIPC as the registrar with the assistance of the National Development Agent that is yet to be established. In view of this, it is recommended that a census of co-operatives in South Africa be carried out and that this information must be updated. It is also recommended that a uniform reporting on activities of co-operatives with a coordinated system of channelling information about co-operatives be established. Lastly, it is recommended that the CIPC revamp its current information and make it transparent and accessible to all stakeholders to benefit the country's economy.

**Conflict of Interest:** I declare that there is no conflict of interest.

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## **Sailing in the Stormy Seas: Exploring the Role of the Social and Solidarity Economy Enterprises and Organizations in Dealing with Uncertainty during the COVID-19 Pandemic - The Case of Agricultural Cooperatives in South Africa**

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### **Abstract**

The research on the role of the Social and Solidarity Economy Enterprises and Organizations (SSEEOs) in dealing with uncertainty during the Covid-19 pandemic remains scant. Determinants of success for SSEEOs rely mainly on the way these organisations run their affairs. As a business model, SSEEOs operate in line with the values of self-help, participation, democracy, equality, equity and solidarity. This makes them vulnerable to exploitative treatment by conventional profit-driven companies. While substantial information is known about social development, little is known about the role SSEEOs play in dealing with uncertainty for agricultural cooperatives in South Africa, especially during the Covid-19 pandemic period. The study's key research question was: How can SSEEOs add value to their production and marketing outputs to mitigate social and solidarity economy (SSE) uncertainty during the Covid-19 pandemic? This study aimed to examine the creation of value for the SSEEOs in Africa whilst embracing both social and commercial goals, with a view to developing a conceptual model for facilitating sustainable partnerships between SSEEOs and food retail companies (FRCs), especially during the Covid-19 pandemic. The study was based on the findings of a mixed method research study entitled: 'Partnering between primary agricultural co-operatives and food retail companies in South Africa', conducted in three provinces - KwaZulu-Natal, Limpopo, and the Eastern Cape - of South Africa. The main objectives were to: examine the impact of Covid-19 pandemic to SSEEOs in value-creation in South Africa; explore the role of SSEEOs in dealing with uncertainty during the Covid-19 pandemic; examine how collaborative approaches can alleviate uncertainty to SSEEOs during the Covid-19 pandemic; explore the key success factors (KSFs) to adding economic value to SSEEOs during the Covid-19 pandemic; and develop an appropriate SSE conceptual model for facilitating sustainable partnerships between SSEEOs and FRCs, especially during the Covid-19 pandemic. A literature review was conducted to triangulate the findings from the mixed methods study. The literature review and the empirical study findings were used as a spring-board to understanding the role of SSE in dealing with uncertainty, especially during the covid-19 pandemic. The study adopted the mixed method design, using the combined quantitative (structured questionnaires) and qualitative (focus group interviews and key informant interviews) approaches. The Statistical Programme for Social Sciences (SPSS) software, version 21.0 for Windows, was used to analyse the data and to conduct the relevant statistical tests. The study used descriptive statistics in analysing preliminary data, but as researcher

was also interested in making statistical inferences about the population from the sample, inferential statistics were also employed. This included the use of correlations and chi square test values, which were interpreted using p-values. The key empirical study findings indicated that partnerships based on shared vision and goals; mutual trust; agricultural skills and enterprise development; long-term commitment, provision of production inputs, and existence of profitable markets are likely to be successful. Culminating from the study resulted in the development of an SSE conceptual model for facilitating sustainable partnerships between SSEEOs, (including the PACs) and FRCs, especially during the Covid-19 pandemic. Findings from this study contribute towards a better understanding of partnerships between SSEEOs and FRCs in South Africa; and it contributes towards expanding the limited body of knowledge in this area, not only in South Africa, but globally as well.

**Keywords:** social and solidarity economy enterprises and organizations; partnering; primary agricultural co-operatives

## 1. Introduction

The Coronavirus Disease 2019 (COVID-19) pandemic has caused serious disruptions in the world's social and solidarity economy sector, and due to the viral characteristics, it is likely that this situation will continue to happen in the foreseeable future. This reality has posed an imperative to explore the role of the SSEEOs in dealing with uncertainty during, and post the Covid-19 pandemic. The SSEEOs, particularly primary agricultural co-operatives (PACs) across the globe have been compelled to alter their functioning to adapt their production and marketing systems as well as activities to the new context to comply with the Covid-19 directives.

During and post COVID-19, it will be necessary to promote cooperation, offering basic services in a different way, recovering, and creating decent employment through diverse and complementary organizational models of production. Recognizing the importance of the role of the SSEEOs, particularly in South African society, and their role in responding to the multifaceted crisis affecting SSEEOs and their members; and further recognizing the extraordinary diversity of the social economy; and observing the resilience of many SSEEOs during the Covid-19 pandemic, the researcher conducted a study on the role of the SSEEOs in dealing with uncertainty during the Covid-19 Pandemic with a particular focus to the case of agricultural cooperatives in South Africa. There is no globally and universally agreed definition of the terms: the SSEs; SSEEOs, PACs, and FRCs. For the purposes of this study, the following definitions were adopted:

- Primary Agricultural Co-operative (PAC) is a co-operative that produces, processes or markets agricultural products and supplies agricultural inputs and services to its members (Department of Agriculture, Forestry and Fisheries, 2010);
- Social and Solidarity Economy (SSE) is a concept which refers to enterprises, organizations, and innovations that combine production of goods, services, and knowledge with achieving economic and social goals as well as solidarity building (Borzaga, Salvatori & Bodini, 2017);

- Social and Solidarity Economy Enterprises and Organization (SSEEO) is a concept designating organizations, in particular cooperatives, mutual benefit societies, associations, foundations and social enterprises, which produce goods, services and knowledge while pursuing both economic and social aims and fostering solidarity (United Nations Inter-Agency Task Force on Social and Solidarity Economy)(UNTFSSSE), 2020), and
- Food Retail Company (FRC) is a juristic person incorporated in terms of the Companies Act No. 61 of 1973, which sells edible goods or merchandise from a fixed location, such as a supermarket or department store, in small or individual lots, for direct consumption by the purchaser (South Africa, 2008).

## **2. Background**

Uncertainty during the Covid-19 pandemic is inevitable and may lead to fear, panic and loss of trust among people because a pandemic like it has not been seen in a century, and much remains unknown and evolving about the situation and the virus that causes it (World Health Organization, 2020). The Covid-19 pandemic has demonstrated the key role that the SSEEOs can play during times of crises. The study was based on a premise that the SSEEOs sector can mitigate economic uncertainty, disruptions and disintegration during the Covid-19 pandemic, which play a critical role in economic growth, job creation and innovation.

There are few studies conducted which explores options for supporting SSEEOs to adapt their production and marketing systems and activities to the new context based on real experiences, and each of them sets out from different approaches, focuses, or objects of study. The research on the role of the SSEEOs in dealing with uncertainty during the Covid-19 pandemic remains scant. Determinants of success for SSEEOs rely mainly on the way these organizations run their affairs. As a business model, SSEEOs operate in line with the values of self-help, participation, democracy, equality, equity and solidarity. This makes them vulnerable to exploitative treatment by conventional profit-driven companies. While substantial information is known about social development, little is known about the role SSEEOs play in dealing with uncertainty during the Covid-19 pandemic. This study contributes to the body of knowledge about the novel approaches regarding the ability of SSEEOs in dealing with uncertainty during the Covid-19 pandemic.

## **3. Aim and objectives of the study**

This study aimed to explore the role of the SSEEOs in dealing with uncertainty during the Covid-19 pandemic, with a view to developing an SSE conceptual model for facilitating sustainable partnerships between SSEEOs and FRCs, especially during the Covid-19 pandemic.

The study's objectives were to:

- examine the impact of Covid-19 pandemic to SSEEOs in value-creation in South Africa;
- explore the role of SSEEOs in dealing with uncertainty during the Covid-19 pandemic;

- examine how collaborative approaches can alleviate uncertainty to SSEEOs during the Covid-19 pandemic;
- explore the KSFs to adding economic value to SSEEOs during the Covid-19 pandemic; and
- develop an appropriate SSE conceptual model for facilitating sustainable partnerships between SSEEOs and FRCs, especially during the Covid-19 pandemic.

This study was based on the findings from the mixed method research study entitled: ‘Partnering between primary agricultural co-operatives and food retail companies in South Africa’ conducted in three provinces - KwaZulu-Natal, Limpopo, and the Eastern Cape - of South Africa completed in 2018 by Nene. This paper is structured as follows: In the next sub-section, the brief key relevant literature review is presented. In the second section the methodological approach applied and the analysis used is discussed; in the third section the main descriptive findings and the results are presented. In the fourth section the main findings and conclusions of the study are provided. Finally, the key conclusions and recommendations from the study are drawn out; and an appropriate SSE conceptual model for facilitating sustainable partnerships between SSEEOs and FRCs, especially during the Covid-19 pandemic, including suggestions for future research are presented.

#### **4. Key Literature Review**

A literature review, using secondary sources of information was conducted to establish, assemble, and integrate the theoretical basis and practice regarding partnerships between SSEEOs and FRCs.

##### **4.1. The impact of Covid-19 pandemic on SSEEOs, including the PACs in value-creation in South Africa**

The pandemic has exposed many fragilities in our economies, and deepened existing inequalities, while highlighting the need for resilience, innovation and cooperation (UNTFSSSE, 2010). The socio-economic inequalities affect the value-creating abilities of the SSEEOs, including the PACs. Even as all of humanity confronts Covid-19 pandemic, pre-existing inequalities along various dimensions are differentiating its impact, and also stand to widen within and across countries because of the Covid-19 pandemic (UNTFSSSE, 2010). SSEEOs around the world are affected by and responding to the COVID-19 pandemic in various ways (International Labour Organization (ILO), 2021). The OECD (2020) predicts that, although enough food is available globally, but Covid-19 is disrupting supply and demand in complex ways which may worsen pre-crisis problems, like the insufficient quantity and quality of employment, the growing inequalities, global warming, and migration.

##### **4.2. The role of SSEEOs in dealing with uncertainty during the Covid-19 pandemic**

Uncertainty has been widely touted as the primary barrier in dealing with uncertainty during the Covid-19 pandemic, and to Covid-19 intervention adoption. In



planning the mitigating strategies for the Covid-19 pandemic, the SSEEOs must also consider the provision for major preventive gadgets, which, according to Pradhan, Biswasroy, Kumar-Naik, Ghosh, and Rath (2020), include an effective surface disinfectants, hand hygiene, personal protective equipment (suitable mask, eye and face protector).

The SSEEOs have a responsibility of producing goods, services and knowledge while pursuing both economic and social aims and fostering solidarity; and they have also to display the ability to expand in new sectors of activity based on the needs of their members (Borzaga, *et al.*, 2017). The SSEEOs have displayed significant growth even through phases of economic recession; and they have also proven to have a great capacity to innovate in terms both of what they do, and how they do it, in response to the social needs of the context in which they operate (Esim & Katajamaki, 2016).

#### **4.3. How collaborative approaches can alleviate uncertainty to the SSEEOs and PACs during the Covid-19 pandemic**

Covid-19 pandemic highlights the importance of effective collaboration for long-term commercial success. Gardner and Matviak (2020), state that a major determinant of how organizations handle crises like the pandemic is collaboration, and suggest several strategies for promoting collaboration in a crisis, which also include partnering with related service providers. Mathews (2021) states that collaboration can alleviate the effect between the past innovation abandonment and future innovation introduction and the ability of SMEs to benefit from both collaboration and the abandonment of some effective new product and service design. Collaboration development and implementation processes shapes its capabilities for ongoing performance (Matthews, 2010).

#### **4.4. The key success factors (KSFs) to adding economic value to SSEEOs and PACs during the Covid-19 pandemic**

According to Oyedele (2013), identification of the KSFs for any project would help the potential partnering parties to obtain its goals in the most cost-effective way, and with the highest quality of service possible. Gates (2010) describes KSFs as those functions, activities or business practices, defined by the market, and as viewed by the customer, that are key to the vendor-customer relationship; and will ensure successful competitive performance for the organization (Rockart, 2011). The KSFs that positively contribute to the success of partnering are discussed below:

##### **4.4.1 Economic viability**

There are four main methods used for economic viability evaluation, namely: payback period, net present value, discounted payback period, and internal rate of return methods, and these depend on:

- long term demand for the service offered by the project;
- sufficient profitability of the project to attract lenders, and
- limited competition from other projects (Zatar, 2014).

While the economic viability of partnering is essential for the success of partnering arrangements, assessment of a partnership formation needs to consider imbalances and inconsistencies that may arise when assessing potential partners from different economic backgrounds and scale; and is based on the understanding and adoption of shared goals and vision between the potential partnering parties (Zatar, 2014).

#### **4.4.2 Shared goals and vision**

The KSFs include shared goals, open communication, a mutually agreed upon strategy, and a conflict management process that avoids costly and adversarial litigation (Manley, Shaw & Manley, 2007). Successful partnerships are marked by coordinated and consistent inter-organizational mutual objectives guided by effective planning, organising, directing, coordinating, and control (Hofer, Knemeyer & Dresner, 2009); which provide stakeholders with the opportunity to actively participate in decision making during the inception stage (Hunt, 2013); and is at its best when it results in the joint determination of outcomes and confers legitimacy upon them (Holmes, 2011). Shared goals and vision bind the partnering relationships, and requires changing traditional relationships to a shared culture without organizational boundaries (Bygballe, Jahre & Sward, 2010).

#### **4.4.3 Mutual trust**

Trust and commitment are pre-requisites for successful partnering (Trim & Lee, 2008); and is a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another (Lazar, 2000). Radziszewska-Zielina (2010) states that the partnering relationship should be based on trust, dedication to common goals and understanding each other's individual expectations and values. Msanjila and Afsarmanesh (2011) state that a key challenge for the establishment of partnership among organisations is the selection of trustworthy partners for the purpose of fulfilling opportunities. Simpson (2007) concludes that relatively little is known about interpersonal trust development, for the reasons outlined hereunder:

- trust is a complex, multidimensional construct, making it difficult to operationalize, measure, and interpret;
- trust can be construed in different ways, and it might have variant importance at different stages of relationship development;
- trust emerges and changes in situations that are difficult to observe and study, and
- trust and goodwill in a relationship can easily be replaced by doubt and distrust (especially if either party has had negative prior experiences).

#### **4.4.4 Long-term commitment**

Commitment, according to Leung and Chan (2007), implies trying for a goal, irrespective of whether the goal is assigned, anticipative or set by the participant(s). It is the willingness of buyers and suppliers to exert effort on behalf of the relationship, which may occur in the form of an organization's time, money, facilities, etc. (Vanpoucke & Vereecke, 2014). Dude (2012) differentiates amongst three forms of commitment: affective, normative, and continuance commitment; and these types of resources are

often referred to as ‘asset specific’ resources, since they are directed specifically towards the other party. Msanjila and Afsarmanesh (2011) aver that commitment is the extent to which one organisation believes the trust relationship is worth to maintain and promote.

#### **4.4.5 Top management support**

Successful partnership is possible if there is commitment from top management (Mitchell, 2007); and is important as it facilitates the provision of adequate resources to form the partnering team (Mistry & Davis, 2009). As senior management formulates the strategy and direction of business activities, their full support and commitment are critical in initiating and leading partnering spirit (Dikmen, Birgonul, Ozorhon & Eren, 2008).

#### **4.4.6 Adequate resources**

The partnering process requires a variety of skills and technology from different participants (Dikmen, Birgonul, Ozorhon & Eren, 2008). While the nature of partnerships varies, at the core they have one central theme: to pull together the people and resources needed to achieve what both (or more) parties could not achieve alone (Mistry & Davis, 2009). Organisations realise that acting together can enhance their competitive power and thus improve their chances of acquiring more and better business opportunities (Msanjila and Afsarmanesh, 2011). For partnering to be successful, partnering entities must be interested in the evolving set of opportunities implicit in the bundle of services and commitments embedded in the contractual relationship (Gonzalez-Vega, Chalmers, Quiros, & Rodriguez-Meza, 2006).

#### **4.4.7 Effective communication**

Organisations function better if communication is open; if relationships are based on mutual understanding and trust; if relationships are co-operative rather than competitive; if people work together in teams, and if decisions are reached in a participative way (Trafford & Proctor, 2006).

#### **4.4.8 Ability to compete**

Organisations may operate under unique challenges in financial management, governance, strategy and communication, thereby impacting on their ability to compete with large commercial farmers (Kenkel & Park, 2011). Regardless of origin, size, or trade, is important for all companies to improve their competitiveness, and one way to achieve this is to interact with other companies in their supply chain: this results in a mutual relationship (Bäckstrand, 2006). Hence, partnering provides a promise of cooperation in an industry setting where commercial pressures traditionally encourage reticence, caution and even adversarial relationships (Anvuur & Kumaraswamy, 2007).

#### **4.4.9 Effective conflict resolution techniques**

Conflict is an inherent part of human society because human existence is itself contradictory, and if conflicts are not resolved and a group is denied its ability to achieve

its ends, hostility, which is a result of frustration, may develop (Mhando, 2014). One of the defining features of a successful partnering arrangement is the existence of a mechanism for conflict resolution (Naoum, 2006).

#### 4.4.10 Affordability, value for money and risk transfer

A partnering initiative is said to be affordable if its expenditure can be accommodated within the budget constraints of all partners, and be assumed that such partnering initiative can be sustained in the future, and the partnering parties should determine whether the proposed partnering initiative can be conveniently accommodated within the current level of its expenditure and revenue (Adekilekun, 2014). If the outcome is in the affirmative, based on six major determinants of value for money, namely: competition; risk transfer; performance measurement; the long term nature of the contract; private sector skills and incentives, then such partnering initiative passes the test of affordability (Grimsey & Lewis, 2007). Based on the discussion above, the KSFs for partnering are graphically represented in Figure 1. below.

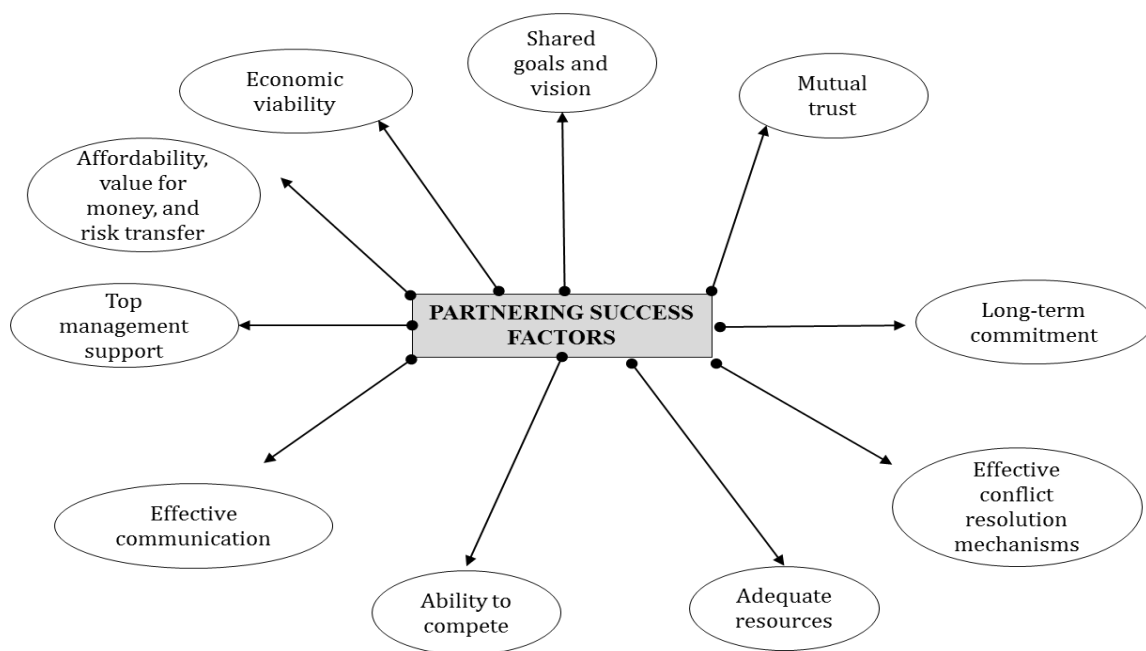


Figure 1: Factors influencing partnering success

#### 4.5 An appropriate SSE conceptual model for facilitating sustainable partnerships between SSEEOs and FRCs, especially during the Covid-19 pandemic

A conceptual framework and conceptual model are sometimes used interchangeably; although Maxwell (2005) defines a conceptual framework as "...primarily a conception or a model of what is out there that you plan to study, and what is going on with these things and why - a tentative theory of the phenomenon that you are investigating" (Maxwell, 2005:33). A conceptual framework demonstrates the

logical connections between theory and actions; it provides the theoretical underpinning to help understand the links between key factors and variables; and it presents principles, assumptions and rules in a structured format, (Orr *et al.*, 2017). In designing the conceptual model for facilitating sustainable partnerships, Nene (2018) states that models are judged based on a number of factors as follows:

- Can the model explain all or most of the observations?
- Can the model be used to predict the happenings of the system or event if it is manipulated in a specific way?
- Is the model consistent with other ideas we have about how the world works?

#### **4. Materials and Methods**

The first part of the materials and methods focused on the study materials and methods used by Nene (2018), and the second part of the materials and methods focused on literature review to establish, assemble and integrate the theoretical basis about partnerships between SSEEOs and FRCs, using the desktop study which focused on exploring the role of the SSEEOs in dealing with uncertainty during the Covid-19 pandemic.

The earlier study by Nene (2018) adopted the pragmatic world view, combining both positivist and interpretivist paradigms as the way the knowledge was created, and adopted a mixed method approach. The target population comprised of the 493 PACs that were located in three provinces, namely KwaZulu-Natal, Limpopo, and the Eastern Cape. A purposive and criterion sampling strategy was used to draw a sample of 375 of the 493 registered PACs in all three study sites. Primary data from PACs were also collected using structured questionnaires; focus group interviews, and from key informant interviews.

The target population of FRCs comprised all known and registered branches of the three FRCs, namely the Shoprite-Checkers Group; the Pick n Pay Group, and the Spar Group that were located within three study sites (three provinces), and totalled N=139. A purposive and criterion sampling strategy was also used to draw a sample of 36 branches from the 139 known and registered FRCs located in all three study sites. The sample spread for FRCs was equally divided for all three sites. Primary data from FRCs were collected using structured questionnaires and key informant interviews.

The face-to-face, open-ended, in-depth conversational focus group interviews were conducted among nine groups of ten (n=10) PAC chairpersons and/or managers per group, from a sample of ninety (n=90) identified operational PACs in each study area. Three focus group interviews per study site were conducted. A total of fifteen key-informant interviews with pre-selected PAC chairpersons and/or managers were conducted, based on five in-depth interviews per study area.

Quantitative data collected from the surveys were collated, numerically referenced, organized, classified and edited into manageable accessible packages to facilitate the process of data capturing. The Statistical Packages for Social Sciences (SPSS) software, version 21.0 for Windows, was used to analyse data and to conduct the relevant statistical tests. After data were edited and cleansed, they were captured on an Excel spreadsheet for statistical analysis. Descriptive statistical procedures were applied to analyse the preliminary data.

The study also collected qualitative data using in-depth interviews, and included developing a description of an individual or setting, analysing data for themes or categories. Qualitative data emanating from interviews were analysed by reviewing focus group and key-informant interviews responses, and by categorising these into themes, as well as by scrutinising and comparing data to search for causal relationship, similarities and dissimilarities.

From this study, partnering theories and principles and benchmark practices were used to evaluate the partnering practices between PACs and FRCs in three provinces (KwaZulu-Natal, Limpopo, and the Eastern Cape) in South Africa.

## 5. Main Findings

In this section the findings emanating from the analysis of both the mixed methods data are presented, analysed, and discussed in a single, interconnected and sequential section to provide a better understanding of the results. The data accessed for this study was in both ordinal and nominal forms, and two types of analyses were performed on the data collected, namely: descriptive and inferential statistics.

A purposive and criterion sampling strategy was used to draw a sample of 375 of the 493 registered PACs, with 375 responses, representing a 100% response rate, which is attributed to the fact that all interviews and focus group discussions were administered by the researcher. There were 27 self-administered structured questionnaires sent to branch managers of the three purposively selected major food retailing companies in South Africa, with 21 responses returned, representing a 77.77% response rate. This was considered more than adequate to draw meaningful conclusions about the target population. Nine key-informant interviews with pre-selected FRC managers were conducted based on three in-depth interviews per province.

The key literature review and empirical study findings indicated that partnerships based on shared vision and goals; mutual trust; agricultural skills and enterprise development; long-term commitment, provision of production inputs, and existence of profitable markets are likely to be successful. The study revealed the following results for each of the research objectives:

### 6.1. The impact of Covid-19 pandemic to SSEEOs, including the PACs in value-creation in South Africa;

The literature review revealed the following:

- PACs encounter production constraints which hinder their ability to meet the high standards and quality requirements demanded by the FRCs;
- PACs have limited access to loan finance to enable them grow their businesses;
- PACs lack governance skills that are usually present among board members of comparable businesses;
- PACs are not well-trained in producing quantities required and quality acceptable by FRCs, and
- some of the PACs are not able to supply agricultural produce at required quantities and acceptable quality at negotiable prices.

The empirical study found the following:

- the PACs face limited access to finance arising from the reluctance of financial institutions to lend to PACs;
- limited access to production inputs (such as fertilizers, seed, pesticides, etc.) retards the production capacity of PACs;
- participation of most partnering PACs is not continuous, as some of them breach the terms of supply contracts with the FRCs;
- poor quality produced and delivered to FRCs by PACs;
- PAC members lack appropriate skills in producing quality produce that comply with FRCs' specification;
- poor communication and poor consultation regarding partnering mechanisms between PAC members and FRC managers, and
- weak linkages among the activities of the co-operatives, for example, production, credit, and marketing.

### **6.2. The role of SSEEOs and PACs in dealing with uncertainty during the Covid-19 pandemic**

The literature review revealed the following:

- co-operatives are efficient means for enabling communities to acquire means to be part of economic activities by Blacks;
- co-operatives are means by which communities accrue economic benefits, and
- supply agreements that FRCs enter into with PACs enable the latter to contribute to local economic development and the enhancement of the quality of life for communities in which they operate.

The empirical study found the following:

- a majority of PACs surveyed promote social integration and community cohesion by training and mentoring women and youth in crop and animal production, and
- PACs are also instrumental in giving poor women, the youth and other marginalised members of a community a purpose and pride by providing employment.

### **6.3. How collaborative approaches can alleviate uncertainty to the SSEEOs and PACs during the Covid-19 pandemic**

The literature review revealed the following collaborative approaches employed by PACs and FRCs:

- consultation and negotiation with financial institutions and government departments to source financial support;
- negotiation with relevant governmental and non-governmental organizations to request assistance towards the provision of production inputs and technology;
- working together with other PACs to supply the quantities required by FRCs;
- supplier engagement;
- sound governance through audit and risk, as well as legal and compliance management, and
- commitment to develop capacity of PACs to process, warehouse and distribute local agricultural produce, and

- enterprise development.

From the empirical study undertaken, the following results emerged:

- some PACs attend short courses in crop and animal production offered by government departments, particularly the Department of Agriculture and Rural Development;
- some PACs partner with established commercial farmers, who, in turn, provide the essential mentorship and coaching, so that PACs can produce goods that comply with FRCs specifications in terms of both quantity and quality;
- capacity development of PACs, and
- enterprise development.

#### **6.4. The key success factors (KSFs) to adding economic value to SSEEOs and PACs during the Covid-19 pandemic**

The literature review identified the following KSFs:

- shared vision and goals; mutual trust and long-term commitment are necessary to anchor understanding and motivation for the partnership within the organisation;
- access to productive land, production inputs, infrastructure, extension services, and value adding facilities in the location of the farmers, market information and transport logistics has been found to be the key factors influencing emerging farmers' participation in remunerative agricultural markets, and
- effective communication and commitment and support from top management, as well as adequate resources are pre-requisites for successful partnering.

From the empirical study undertaken, the following results emerged:

- the availability of material resources (like production inputs and land);
- the availability and continuous access to financial and human resources;
- ability to access training in production, management, and technical skills;
- competency of PAC managers and technical staff, and
- effective communication amongst PACs and FRCs about partnering.

#### **6.5. An appropriate SSE conceptual model for facilitating sustainable partnerships between SSEEOs, PACs and FRCs, especially during the Covid-19 pandemic**

The proposed conceptual model is supported by a unique dataset comprised of the framework developed by Nene (2018) and is based on its final study findings, matched with secondary data from the corresponding literature review conducted by the researcher in 2021. The two dataset were synchronised and were adjusted to SSEEOs' circumstances.

### **7. Discussions**

According to Arndt, Davies, Gabriel, Harris, Makrelov, Modise, Robinson, Simbanegavi, van Seventer, and Anderson (2020), South Africa's economic fortunes are



currently closely tied to the Covid-19 pandemic brought on by the novel coronavirus. The lockdown measures that South Africa has put into place have profound economic implications. The implications of the pandemic in the rest of the world, and hence on demand for South Africa's export, are not as large as the effects of the domestic lockdown but are still very large by any normal measure. Although Sishuba (2020) states that millions of farmers across Africa are facing economic devastation as the Covid-19 pandemic disrupts exports and global food supply chains, and agricultural production in South Africa is currently adversely affected by the Covid-19 pandemic, logistical challenges and border restrictions affect South Africa's agricultural exports.

Managing uncertainty involves strategies that help firms either reduce (risk management) or cope with (strategic management) uncertainty; reducing uncertainty is a natural motivator that guides firms' behavior, whereas coping with it allows firms to adapt their strategy to deal with the type of uncertainty faced by them (Sniazhko, 2019). The effects of this pandemic on the SSEEO members' mental health will continue far beyond the discharge of the last patient with Covid-19; therefore, these strategies to promote wellness will remain as long as the need persists (Schaye, Reich, Bosworth & Stern, 2020). In times of crisis, effective communication from leadership is essential to disseminating information and can ameliorate anxiety and fear (Schaye, *et al.*, 2020).

Both PACs and FRCs respondents were asked to rank, in order of importance, the following factors: existence of a profitable market; commitment and support from top management; mutual trust; long-term commitment; adequate resources; innovation capacity; effective communication; efficient coordination; skills and capacity; ability to compete, and productive conflict resolution that influenced the sustainability of partnering between PACs and FRCs. The results are presented in Table 1 below.

**Table 1: Ranking of key success factors to sustainable partnering by PACs and FRCs**

Key Success Factors	FRCs	PACs
Productive conflict resolution	3	10
Ability to compete	9	3
Skill capacity	10	8
Efficient coordination	8	7
Effective communication	7	4
Innovation capacity	4	5
Adequate resources	5	6
Long term commitment	1	2
Mutual trust	11	1
Top management support	2	9
Existence of a profitable market	6	11

Table 1 above shows that there is a diversity of perceptions with regard to what PACs and FRCs regard as key factors to sustainable partnering. For example, whereas most FRCs ranked long-term commitment as the most important factor to sustainable partnering, PACs ranked mutual trust as the most important factor to sustainable

partnering; and FRCs ranked top management support as the second most important factor to sustainable partnering, and PACs ranked long term commitment as the second most important factor to sustainable partnering.

The conceptual model for facilitating sustainable partnerships between SSEEOs and FRCs suggests a way to partnerships between SSEEOs and FRCs through its components, the dynamic between them and the way they interact through the agreements and conventions built between the actors. Culminating from the study will result in the development of an SSE conceptual model for facilitating sustainable partnerships between SSEEOs, (including the PACs) and FRCs, especially during the Covid-19 pandemic.

## **8. Conclusions of the Study**

This section commences with the conclusion and recommendations are presented. This is followed by the proposed conceptual framework for effective partnering between PACs and FRCs. The section concludes by directions for future research.

The Covid-19 pandemic is probably going to entail a turning point for the SSEEOs in South Africa and beyond. The main constraints to partnering faced by PACs were limited access to finance; limited access to sustainable markets, as well as lack of governance, management and technical skills. A lack of communication and participation by SSEEEO members as well as weak linkages among the activities of the SSEEEOs, for example, production, credit, and marketing, may pose challenges for FRCs to partner with SSEEEOs. By equipping SSEEEOs with essential infrastructure, inputs, and equipment, FRCs can assist SSEEEOs in improving the quality and quantity of their production outputs. Finally, effective partnerships are sustained by offering SSEEEOs production support, which includes the provision of production inputs (seed, fertilizers, medications, chemicals, etc.), and mechanisation (tractors and logistics).

Strategic partnerships between SSEEEOs and FRCs have the potential to set mutually beneficial goals which may result in 'buy-in' and synergistic benefits, based upon each other's information and ideas. Strategic planning and managing the partnering process may be a tedious process, but results to be derived from the process may improve the SSEEEO-FRC relationships, which can ensure competitive advantage for SSEEEOs, in the long-term.

Partnerships based on shared vision and goals; mutual trust; long-term commitment; adequate resources - material, financial and human - are likely to be successful. Access to productive land, production inputs, market information and transport logistics are also KSFs influencing the sustainability of partnering between SSEEEOs and FRCs. Effective communication and commitment, support from top management, and adequate resources - material, financial and human - are also necessary to secure long-term partnerships.

### **8.1. Recommendations**

Based on the findings from literature review, and the results emanating from the empirical study conducted by Nene (2018), the following recommendations regarding the role of the SSEEEOs in dealing with uncertainty during the Covid-19 pandemic are proposed:

- There must be a willingness by the relevant Government Departments - particularly the Departments of Small Business Development, and Agriculture, Land Reform, and Rural Development – as well as the private sector to support and promote SSEEOs, particularly PACs, and increase the number of partnerships with them.
- Relevant stakeholders - financial institutions and relevant government departments – must improve and sustain access to finance, business services, social services, etc. for the most vulnerable population groups (more specifically women, young people, elderly citizens, people with disabilities, child labourers, and people affected with HIV) by promoting their participation in SSEEOs, thereby relying on grassroots initiatives and local traditions.
- The Department of Agriculture, Land Reform, and Rural Development (DALRRD) in South Africa, must provide an enabling production environment for SSEEOs, particularly PACs by allocating additional arable land to PACs, and by assisting PACs with production inputs, like seeds, mechanisation, pesticides, and logistics.
- There is a need for strengthening the capacities of SSEEOs, particularly PACs members by developing appropriate curricula in training institutions and universities to acquire governance, management, and technical skills using free, relevant and innovative massive open online courses (MOOCs).
- The SSEEOs, particularly PACs should improve the production capacity by collaborating with each other in order to improve the quality and quantities of their produce/ products.

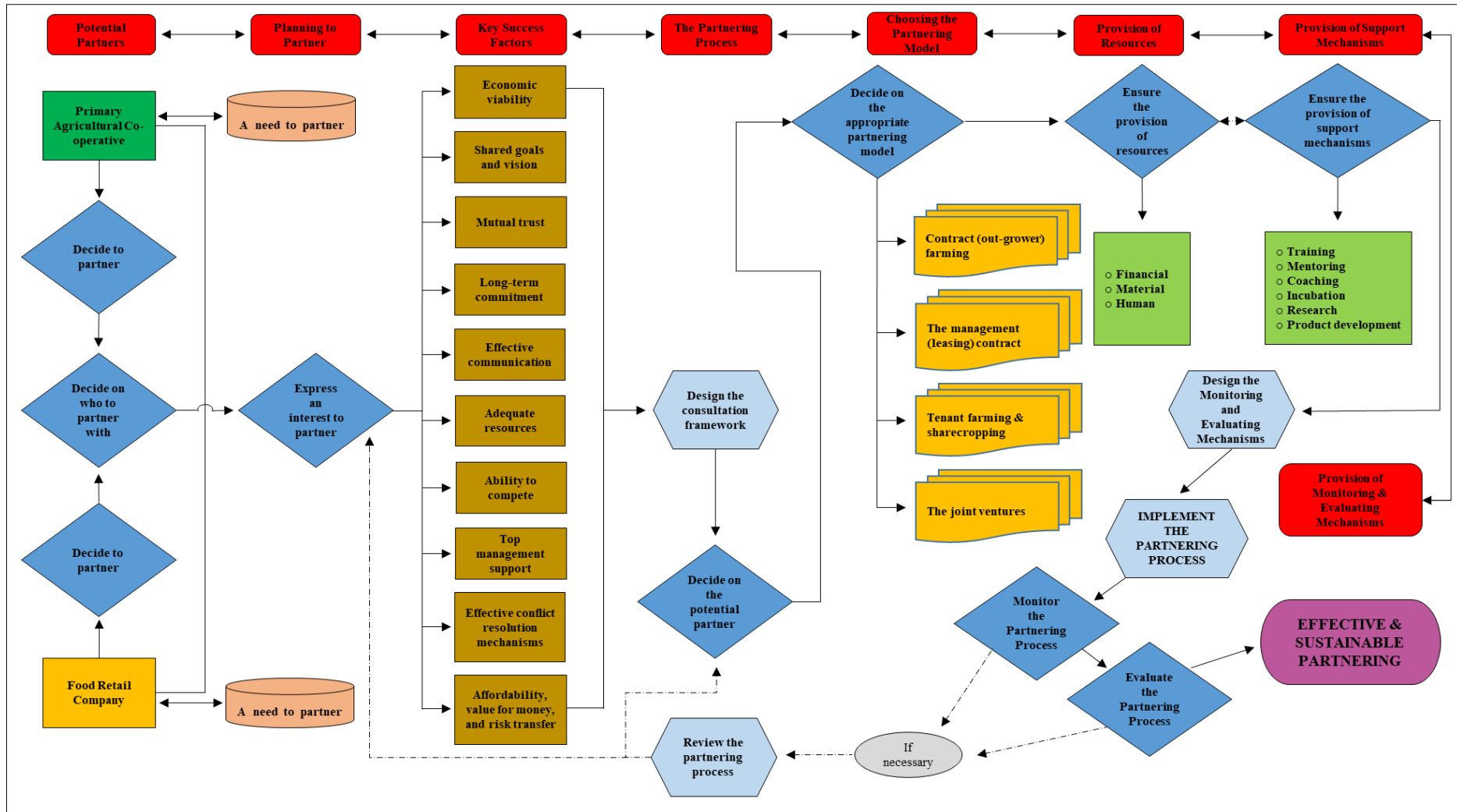
## **8.2. The Proposed Partnering Conceptual Framework**

The conceptual framework is based on the transaction cost theory proposed by Williamson (1985), which asserts that “as firms strive to balance cost (efficiency) and control (protection) issues, a mix of hierarchies and markets will emerge to manage the transaction”. The transaction cost analysis theory is governed by three components: asset specificity, small numbers of transactors, and imperfect information (Hughes and Beasley, 2008). Partnering is seen as a way to facilitate the reaching of more pareto-efficient allocations, by lowering transactions costs for renegotiations through trust and reciprocity (Nyström, 2005).

The resource-based theory supports a different opinion of entry mode option that stresses resource accrual an alternative basis of sustaining competitive advantage for companies (Penrose, 1958). This view of the company depends on two assertions for assessing competitive advantage: first, companies may be diverse regarding the assets they manage in such a way that they timeously grow or amass assets differently based on their own distinctive histories, and second, a majority of assets are improperly moveable, such as access to prime raw materials, and may prompt continuous diversity (heterogeneity) between companies that really can expand in the long run (Barney, 1991). Drawing on the literature reviewed and the empirical study, a conceptual framework, comprising of three elements at differing stages and levels of analysis: planning partnering process; implementing partnering processes, as well as monitoring and evaluating the partnering process, was developed, the details of which are presented below.

It can be affirmed that the following conceptual framework is hypothetically based, conceptually rigorous and as inclusive as possible - as shown through the analysis above and ensuing discussion in this study's preceding sections - there are shortcomings that need to be accepted when shifting from theory to practice. The variables and parts will clearly not all be applicable in all cases, nor should these elements be regarded as unrelated from each other - more relevant mixtures may be important in some cases and not others, mainly for specific functional forms of partnering between SSEOs and FRCs. The following is the proposed appropriate SSE conceptual model for facilitating sustainable partnerships between SSEOs and FRCs, especially during the Covid-19 pandemic.

Figure 2: SSE conceptual model for facilitating sustainable partnerships between SSEEOS and FRCs, especially during the Covid-19 pandemic



## 9. Suggestions for Future Research

This paper chronicles the connection amongst the impact of Covid-19 pandemic to SSEEOs; the role of SSEEOs in dealing with uncertainty during the Covid-19 pandemic; how collaborative approaches can alleviate uncertainty to SSEEOs, and the KSFs to adding economic value to SSEEOs during the Covid-19 pandemic. However, in order to prove these connections definitively, studies that include more specific measures of the partnering concept are necessary. Moreover, further research is needed to develop explicit methods for analysing the impact of partnering on the performance of both PACs and FRCs. Future research could further investigate issues relevant to the proposed partnering framework and expand its application in different situations, especially during the Covid-19 pandemic.

**Conflict of Interest:** The author declares that there is no conflict of interest.

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## Cooperatives and Local Development in Izmir and Its Environs: Potentials, Problems and Policy Recommendations

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### Abstract

Cooperatives may play a significant role in local economic development, encompassing production capacity, employment generation, economic democracy, as well as the urban-rural extension, mobilization of local resources both material and human, and social inclusion of marginalized and/or vulnerable groups into economic activity. The impact of cooperatives on local development in terms of economic prosperity, social empowerment, community building and engaging in solidarity networks will represent a causal mechanism for a deeper understanding of the multiple purposes a cooperative system may serve. This study critically analyzes structural problems and potentials of cooperative development in Turkey by focusing on the case of Izmir, where the highest number and the most diverse sets of cooperatives are observed. The study's focus on local economic development aspect incorporates both rural and urban dimensions, extends from agrarian economic activity into the urban social and economic dynamics. This addresses the limitation of in existing literature exclusively dealing with cooperatives as a rural phenomenon.

The analytical framework that underpins the study promotes structural transformations and policy alternatives to further mobilize cooperative development in Turkey. The study adopts a qualitative approach with data collected from observations and semi-structured interviews with cooperative members. The main findings of the research indicate that cooperative development in Turkey is mainly top-down and excessive involvement of the state altered the democratic and autonomous functioning of cooperatives and undermined their performance.

**Keywords:** Cooperative legislation, local development, Turkish cooperatives, cooperative development policy

### 1. Introduction

Although cooperatives have an extended historical presence in Turkey, they have not realized their full local development potential. Overriding control of the state in the establishment and operation of cooperatives, which heavily alters the principles of autonomy, democratic practice and voluntarism contributes to the poor performance of cooperatives (Ministry of Customs and Trade, 2012 :31-32). Another limitation is the preconception that cooperatives are mainly operational in traditional sectors and the

agrarian economy. By the 1980s, Turkey's full-scale commitment to neoliberal economic policy created a new trajectory where the state pulls from its legal institutional regulation of economic development, resulting in deeper penetration of corporate capitalism in the country. Under neoliberal political economy, the roles (e.g. funding, project based assistance and information dissemination) previously undertaken by the state were indirectly (in some cases directly) assumed by international non-governmental organizations, intergovernmental organizations and other supranational bodies by way of providing.

There is a tendency in the literature to regard cooperatives and other solidarity efforts from an idealist perspective, as if they can overcome structural problems of poverty, inequality and underdevelopment (Serinikli, 2016: 606-607). Although cooperatives carry the potential of economic mobilization and social empowerment, organizational challenges, leadership issues and coexistence with the neoliberal market dynamics counterbalance this potential. The durability of cooperatives is one major issue. Lack of commitment and trust among members affect the performance of cooperatives. The paternalistic nature of leadership and the absence of democratic decision making is another factor that undermines the performance of cooperatives (Aykaç, 2017: 146-147). Other factors included corruption in accounts and operations, lack of transparency and accountability of management which intensifies trust deficit, inefficient distribution, and limited diversity in service provision (Halis, 2021). This research critically analyzes the historically precedent state-centric, top-down approach of cooperativism and seeks to expose the potentials of cooperativism in pushing for local economic development if and only if it mobilizes local resources, material as well as human.

Cooperatives often resort to making alliances with municipal/provincial governments and/or their agencies to benefit from public procurement and create a market niche for themselves. While such alliances stand to be significant outlets where cooperatives develop their business, they also carry the risk of building a dependent relationship, the durability of which depends on the political success of the municipal/provincial government. Some of these risks are the loss of autonomy, the reordering of priorities, and external influence on the decision-making process. The research evaluates the potentials and the risks associated with cooperative and local/provincial government alliances.

## **2. Background to the Institutional and Legal Framework**

In general, the institutional framework surrounding cooperative development may also become a challenge to the autonomy and democratic governance of cooperatives. The regulatory framework towards cooperatives imposes further challenges to cooperative development.

The legislative history of cooperatives in Turkey goes back to the 19th century, that is, to the Ottoman era when cooperatives were established Memleket Sandiks<sup>29</sup> for the purpose of relieving the peasants from resorting to usurers. Following this and a few unsuccessful attempts, Sandiks were replaced by Ziraat Bankası (Agriculture Bank) in 1888. The primary aim of Ziraat Bank was to provide cheap credits to peasants. This bank continued its role in the Republican era and proved to be one of Turkey's indispensable elements of the agricultural sector. Although the cooperative movements in Europe drew

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<sup>29</sup> Sandik literally means "chest" in Turkish, but the way it is used here have a meaning of some sort of an accumulated money where people could withdraw credits with long terms and low credits whenever they needed.

significant attention from the Ottoman intelligentsia, they regarded as the key to the development of an independent national economy, as a remedy to foreign intervention in the economic affairs of the Ottomans. The intelligentsia were also active in preparing a legislative framework for cooperatives none of which were adopted by the state. The cooperative law in the Ottoman era was limited to the enactment of by-laws (Gökeer, 1975, 20-58).

The early Republican years (the 1920s and 1930s) saw a very active state involvement in establishing cooperatives, specifically in agriculture. However, this active involvement created a fundamental dilemma regarding state-cooperative relations. On the one hand, the state regarded cooperatives as one of the most important agents of agricultural development. On the other hand, this heavy involvement ignored the basic principle of independence and freedom. Therefore, cooperatives became heavily dependent on state subsidies and cheap credits provided by Ziraat Bank, the capital of which was provided mainly by the state. This dilemma reflected itself in the legislative process as well. The enactment of the *İtibari Zırai Birlikleri Law* (Agricultural Unions-1924) was followed by laws on Agricultural Sales Cooperatives and Unions and Agricultural Credit Cooperatives (1935). Apart from these, no separate law was adopted for other types of cooperatives, although several consumer and housing cooperatives began to be established during this period. A section of the Trade Law (1926) was dedicated to establishing and operating cooperatives. The law treated cooperatives like ordinary companies (Ültanır, 2019: 59-61).

The flourishing of cooperatives in the genuine sense of the term was in the 1960s and 1970s. Two reasons accounted for this: with the new constitution (1961), the state became responsible for taking the necessary measures to develop cooperatives together with the first five-year plan, which encouraged the establishment of cooperatives. The sharp increase in the number of cooperatives came when a government project was adopted in 1965 that gave priority to villages with cooperatives for the recruitment of labourers who would go to Germany. The logic behind the project was that these labourers would provide for the capital needed for these cooperatives. Upon their return, they would utilize their technical skills to contribute to the industrial development of the village (Ministry of Trade, 2020). However, the project did not produce the intended results and was suspended after a few years. During this period, the number of village development cooperatives rose from 58 in 1965 (Ülgen, 2008: 15) to 6247 in 1976, of which 402 were active (Öksüz, 1982: 347). These cooperatives united under *Köy-Koop*, which gave them enormous political and economic power in the 1970s. *Köy-Koop* became so powerful that they could embark on projects such as importing tractors for its members and purchasing the majority shares of a private bank without resorting to state funding. During this period, a cooperative law (1969) was finally promulgated. For the first time, the law comprised all types of cooperatives. Although it was more democratic and cooperatives were more independent, there was still heavy state involvement.

The progress that the cooperatives achieved was reversed in the 1980s. Following the 1980 coup in Turkey, the new constitution (1983) subordinated the cooperatives to the control of the state. The cooperative members were banned from entering politics and cooperating with political parties. Some clauses of the cooperative law were amended to limit their freedom and independence. The state began to withdraw its financial support from cooperatives as neoliberal economic policies began to be adopted in the 1990s.

Although cooperatives were not public institutions, the concept of “privatization of cooperatives” entered use. This is an indication of heavy state involvement in the previous years (İslamoğlu, 2017: 79). State funding for agricultural credit cooperatives and agricultural sales cooperatives were gradually withdrawn.

The European Union (EU) membership process had a profound effect not only on cooperativism in Turkey but the agricultural sector as a whole. Efforts to harmonize domestic laws with EU laws resulted in the promulgation of the new Agriculture Law (2006) and Contract Farming Law (2008). Both laws aimed to introduce a more market-oriented approach, especially for agriculture cooperatives. However, these laws opened the agricultural sector to a very competitive environment for small-scale farmers. Coupled with the withdrawal of state support from agriculture credit cooperatives, the farmers could not compete with the new market dynamics. The result was that by 2010, almost half of the farmers left their occupations (İslamoğlu, 2017: 81).

As of 2021, the 1969 Cooperative Law is still in force, albeit with amendments. Heavy state involvement in providing subsidies and funding has gradually decreased, whereas, heavy state control regarding independence and freedom of cooperatives has increased. Therefore, the cooperative sector in Turkey is still far from reflecting the universally accepted principles of cooperativism. Institutionally, cooperatives fall under the jurisdiction of three different ministries. There is a dire need to unify the institutional and regulatory framework towards cooperativism in Turkey to ensure the flourishing of cooperatives in an autonomous and self-sustaining manner and with full commitment to universal principles of cooperatives.

### **3. Materials and Methods**

The empirical evidence for the research comes from Izmir, Turkey. Izmir has the highest number of small businesses, craftsmen and producer cooperatives and credit unions in Turkey. It ranks in the top ten in agriculture, irrigation, transportation and consumer cooperatives among the 81 provinces in Turkey (Ministry of Customs and Trade, 2017). Cooperatives moved beyond agriculture and the traditional economy into care work, culture industry, and services, especially after the country's 1999 and 2001 economic crisis. Women cooperatives, community food groups, consumer cooperatives have been noteworthy examples. After 2011, Izmir has become a hub of immigrants fleeing the Syrian civil war. Cooperative formations also address immigrants and refugees as Turkey hosts one of the highest numbers of refugees in the world. Izmir is a port city and the third biggest metropole of the country, ranking in the top echelons in terms of cooperatives and solidarity networks. Overall, the cooperative universe in Izmir is representative of the existing dynamics, diversity of cooperatives and groups involved in cooperatives. The research focuses primarily on four major cooperative categories: agriculture, social and consumer cooperatives, and women cooperatives. The exclusive focus has to do with practical purposes and representing the contemporary transformations and tendencies in cooperativism in Turkey.

The research employed a qualitative approach and benefitted from several sources of information. The primary source of information and the significant contribution of the study is based on the findings of the fieldwork conducted in Izmir, including observations, cooperative visits, and interviews with representatives and members of cooperatives. The

fieldwork directly exposed the potential of cooperatives in promoting and contributing to local economic development and the limitations they encounter in their development process. The units of analysis in the research are cooperatives and not cooperative partners. As the cooperative domain in a city of five million is diverse and scattered, the research uses snowball sampling. The sampling process began not from a single cooperative but from different cooperative types in order to achieve the necessary diversity. The data was collected through semi-structured interviews based on a survey of thirty questions, mostly open-ended, and divided into five sections: first the organizational structure; second activities undertaken; the division of labour and partner relations; third, external relations and partnerships; fourth, formal liabilities and institutional relations and finally problems and policy alternatives. To evaluate the legal institutional framework, official data, laws and other legal documents, annual reports of ministries and other government agencies, and those of cooperatives and cooperative unions are analyzed comprehensively. The literature review and secondary data from NGOs and INGOs will help expose the relationship between cooperatives and local economic development. Last but not least, aggregate data on cooperatives will be used to support the findings from the fieldwork.

## **4. Results**

### ***4.1. Agriculture Cooperatives***

Agriculture has been an important economic activity and employment area in Turkey up until the 1980s. Turkish agriculture is traditionally based on small scale family production. Therefore, capitalist farming, plantation industry or accumulation was very much limited. After adopting a neoliberal economic policy in the 1980s, Turkish agriculture moved towards capitalist farming in general, corporate control over farming activity, especially through contract farming. Two large cooperative unions, namely Pankobirlik, the sugar beet cooperatives union and Tarım Kredi Kooperatifleri Birliği (Agriculture Credit Cooperatives Union), have adopted this trend of corporate control and financialization. In the midst of this neoliberal trend, a new wave of agriculture cooperatives is building an alternative route into the economy.

Agriculture cooperatives are the most common cooperative category in the country, along with housing and transportation coops. They also have a lengthy history, some operational over 50-60 years. In general, these cooperatives are locally dense, generally 150-250 members. Personal ties and kinship relations contribute significantly to cooperative operations therefore expansion in partnership is rather slow. There are success stories with 2000+ members that have integrated production plants and brand names, such as Tire-Süt, a dairy cooperative in Izmir. However, such cases are very few (Çakırca, 2019). There has been a revival of interest in the last two decades as a result of prolonged economic decline. However, it has not led to significant growth in membership and productive capacity (Özdemir, Keskin and Özüdoğru, 2011). Small size coops remain traditional in their operation. They have limited capacity for expanding production, product diversification, innovation and marketing. They suffer heavily from competitive disadvantage, especially against the corporate structure. One reason for this is the changing nature of farming practices due to capitalist farming, corporate control, contract farming and the like. Another change is in the government policy towards agriculture, which is subordinated to industrial

and service sector growth. The third is the weak interest towards cooperativism, lack of collective mobilization.

Looking at their external relations, agriculture cooperatives receive limited support from the central government because of the latter's commitment to neoliberal economic policies. Their most important external partner is the local/municipal government, providing aid or engaging in social procurement towards coops. Some cooperatives also apply for funding and project-based grants from the EU, IGOs or INGOs. As for cooperatives and big business, there are some examples of good practices where coop produce is sold on popular e-commerce sites; however, that is also limited. Agricultural cooperatives have high growth potential because of the availability of resources human and, otherwise, sustained domestic demand and favourable conditions for continuous productivity; however, they suffer from structural problems in the organization. A multidimensional policy approach is crucial for resource mobilization, market integration and coop networking.

#### **4.2. Women Cooperatives**

The employment of women has been a historically persistent social problem in Turkey. There is a deep problem of structural unemployment, low-level labour force participation, and NEET problem among women. Without the economic mobilization of women, the chances of local development and social empowerment are minimal. In this context, women cooperatives are seen as a policy instrument in tacking with the socio-economic status of women in Turkey.

Women cooperatives are the fastest growing cooperative category in Turkey in response to increasing poverty and social inequality. Women cooperatives are not only a way of employment generation but also for social empowerment against the patriarchy, domestic abuse and overall gender inequality. Women cooperatives are usually small in size, ranging from 50-200 members and generally focusing on food processing and production, handicrafts, textile production. While the number of cooperatives is increasing, partnership numbers are not increasing in a complementary manner. Even when the number of partners increases, it does not necessarily lead to greater involvement and active contribution. Regarding their productive capacity, the fact that production concentrates around similar areas leads to competition rather than cooperation. Hence, there is an urgent need to diversify their productive capacity in areas not yet activated. One noteworthy remark about women cooperatives is that they reproduce women's traditional roles in the household. Therefore, their potential for socio-economic empowerment is somewhat limited unless they break the cycle of producing on traditional frameworks and reproducing traditional roles.

There is a growing focus in literature towards care work, and that is one area that women cooperatives may expand in the future. Some cooperatives operate cafés and small restaurants, which sustain employment and generate income for partners. However, income levels are barely minimum wage standards. Several cooperatives have extended use of the internet, social media and even e-commerce. They generally lack a competitive edge in the market because of limited supply and high prices (because of labour cost). Some women cooperatives manage to get a competitive range in their prices. However, their growth potential remains uncertain.

One issue that requires attention regarding women cooperatives is that they are not grassroots organizations. The fast growth in women cooperatives is due to external support, some from the central government but mainly from local/municipal governments. They are either established directly by the state or the local government or they get aid from them. Aid is not in monetary terms but either an office or materials for production or procurement of goods produced. Some women cooperatives are used as an intermediary by think tanks, NGOs, or by government to access international funds. Funding and grants are used to buy machinery or meet basic infrastructural needs. Some women coops receive no external support and develop on their own, but somewhat less in number and smaller in scope.

Autonomy stands out to be the most important issue regarding women cooperatives. Heavy reliance on external supports prevents these cooperatives from innovative entrepreneurship, sound decision making on organizational issues and potential for expansion. As was expressed very openly by one interviewee, “Many women in cooperatives consider making a demand to be something productive, making something.” Because of their strong ties with external actors, they consider their bargaining power to be a gain. Hence, they become a means to an end, usually a political end, rather than an end in itself.

### **4.3. Social Cooperatives**

There has been a significant rise in social cooperatives in the last two decades. Social cooperatives differ from traditional cooperatives in how they operate in service sectors, such as care work, education or culture industry. There are education coops, research coops, coops that incorporate refugees and include them in the economy and theatre coops. Social cooperatives also differ from traditional cooperative forms in the way they hold social objectives and economic ones, as they seek to empower disadvantaged and vulnerable segments of society. One such group in Turkey is the Syrian refugees, as the country hosts the highest number of refugees globally. There are several social cooperatives established in Turkey to support Syrian refugees’ integration process and their economic mobility. One such case was a cleaning cooperative founded with the support of the World Bank, the European Union and the ILO, which consisted of an education program to teach cooperative principles and basic hygiene standards to participants and then helped them enter the market. Social cooperatives aim to generate social empowerment for such groups and seek ways of incorporating them into the economic domain, not just as passive recipients of social safety nets but as active participants, entrepreneurs and decision-makers of their livelihood. Social cooperatives can mobilize the disadvantaged, discriminated and even stigmatized segments of society to fulfil a social policy function.

One example of social cooperatives interviewed for this research was a theatre cooperative, founded by a number of private theatre companies, which have been hit by the pandemic and the lockdown. Beyond the pandemic, private theatre companies usually suffer from financial fragility. In times of market contraction, economic crisis and financial difficulty, arts and cultural activities is one of the primary consumption items people refrain from. The interviewees also underlined the rent for space for rehearsals and performances, the cost of staging forcing them to seek ways of cooperating with those under similar circumstances. Regarding their social objectives, they seek to undertake drama classes for children, organizing a mobile theater network beyond the metropolitan area.



Another example included in this study was an education cooperative. The Turkish education system has gone through massive privatization in the last few decades, and this has generated huge disparities in accessibility and education quality. Education cooperatives are working to provide diverse educational activities and programs for different age groups, focusing mainly on elementary and middle school children, at a cost much lower than the market range of private schools. In addition to their educational programs, they also engage in public-private partnerships, use external funding from IGOs or INGOs for their projects towards certain target groups. One such example was a project of a psychodrama program towards children affected by the earthquake in the city. The respondent mentioned that although many of their programs have a fee, they try to balance their activities with free of charge programs for greater social impact.

Social cooperatives are important in the way they unite economic objectives with social ones. They also play a leading role in the social empowerment of otherwise disadvantaged, vulnerable groups. In addition, they diversify the cooperative domain by focusing on service production, care work and new economic areas. However, they are also facing a challenge for sustainability and expansion. Many rely on external sources from the local government or from INGOs. They are not economic entities. They depend on funding, grants and donations. In general, their productive capacity is not competitive, and it takes much longer to become self-sufficient.

#### **4.4. Consumer Cooperatives**

The last category included in this study is consumer cooperatives. Consumer cooperatives are an emerging form of solidarity in response to rising poverty and inequality. Like social cooperatives, consumer cooperatives also have a social objective: they support producer cooperatives and agriculture cooperatives by marketing their produce. They also fulfil the function of networking among cooperatives and expand the cooperative domain. An underlying theme in consumer cooperatives is food security and/or food sovereignty. They challenge capitalist farming principles and industrial food and support local farmers, organic produce and fair-trade principles. Consumer coops buy in bulk from other coops and sell locally or share among partners. When sharing among partners, there is a certain division of labour. The system requires direct participation for logistics.

There are certain challenges they encounter in their operations. When selling locally, it is more complex because they need sustained demand (customers), storage place, transportation, bookkeeping, and marketing. The sale price will include the cost of these tasks so it is not exactly “direct from the producer to the consumer”. One major paradox is that the prices in consumer cooperatives or cooperative stores are higher than the market range, making it difficult to sustain the practice. They need continuous volunteer work to cover their external costs in such cases. Another difficulty is the transportation costs added to the produce. Since the scale of production and trade in cooperatives is much smaller than the retail sector, logistics and transportation have a greater weight on the prices. This can be counterbalanced by sizing up, having more cooperative partners or more cooperative shoppers, but in general, is a risk that consumer cooperatives encounter.

## 5. Discussion of Research Findings

### 5.1. Problems Cooperatives Face

There are several problems cooperatives encounter. These differ with respect to the type of cooperatives, the partner profile, targeted groups and cooperatives' partnerships with external parties. While addressing this diverse set of issues is beyond the scope of this research, a brief overview of the structural problems cooperatives face will help pave the way towards a complementary discussion of policy alternatives.

First and foremost, cooperatives face operational problems due to the legal institutional framework. The cooperative law of 1969 and the amendments from thereon have not been fully responsive to the changing dynamics in the cooperative domain. New types of cooperatives have not been incorporated into the legal framework. Despite the widespread adoption of e-government and digitalization, the bureaucratic load of cooperatives has not eased. These instruments could be used for communication, information dissemination and data collection. Third, cooperative law does not represent the universal principles of cooperativism; they remain to be state-centric and top-down in the way they define the framework. Finally, considering the neoliberal framework of the Turkish political economy, cooperatives are not legally supported, there are no incentives that promote cooperatives' flourishing.

An institutional problem is that the cooperatives are governed by three different ministries: Agriculture and Forestry; Environment and Urban Planning; and Trade. There is hardly coordination among the ministries. Some cooperatives are directly related to agriculture operate under different ministries (agricultural development, forestry, livestock, irrigation). While some cooperatives underline that all regulations regarding cooperatives should be aggregated under one roof, others argue that such a comprehensive approach will not help address particular problems cooperatives face. For example, the interviewee for the theatre cooperative mentioned that arts were a unique area of production and their regulation under the ministry of trade was irrelevant, and they fall within the domain of the Ministry of Culture. While such an argument has some reason, it further complicates the problem by adding a fourth ministry into the picture.

Another institutional issue is that little or no tax exemption or any other incentives to facilitate the successful functioning of cooperatives. Turkey has shown strong adherence to neoliberal political economy in the last four decades. Commitment to free market principles and deregulation has reflected upon the field of cooperatives. Therefore, the cooperative domain remains completely deregulated and unsubsidized. Considering that there is structural unemployment in the country and low levels of labour force participation for women, tax incentives may play an important role in promoting cooperativism, hence pushing for greater economic mobility among groups otherwise idle.

From an operational perspective, the problem of autonomy indicates that most cooperatives depend on external sources, at least in their initiation, but mostly during their life cycle. One form of dependency is material, such as funding, grants, and resources. Another form of dependency is institutional support, such as seeking legal expertise to write a cooperative agreement and other procedural tasks. They also depend on outside sources for auditing and financial tasks (tax submission, accounting etc.), usually pro bono.

From a managerial perspective, the lack of democratic management seems to be a common problem for all cooperative types. Democratic management is not just holding annual board meetings but incorporate all the partners in the decision-making process. Given the improvements in IT and availability of online resources for group communication, one could foresee that cooperatives will benefit from such technology. Unfortunately, even cooperatives that use IT for marketing purposes do not really use it towards democratic management. The discrepancy is not an indicator of a lack of knowledge or skills but one that has to do with the managerial philosophy. Many coops lack direct partnership involvement, which is crucial for innovation, interactive communication and expansion. In many cases, leadership remains unchanged, competition in leadership is next to none, and even the possibility of rotation in leadership or board positions is minimal.

Cooperatives are economic enterprises that can operate in both socialist or capitalist systems. In either case, they need to be responsive to the systemic dynamics that they operate. Therefore, in a capitalist setting, they have to be competitive, innovative and market-oriented. But they tend to overlook this fact and expect funding or support from the government or other agencies as if it was their duty to do so. In addition, cooperatives need to fulfil a certain social function of addressing social issues or targeting vulnerable groups in society. Therefore, a top-down approach of externally founding cooperatives leads to a more philanthropic approach than a solidaristic one.

## **5.2. Policy Alternatives for Cooperative Systems**

A review of the legal institutional framework towards cooperatives and the respondents' input from the fieldwork suggests that a legal reform on cooperatives is the first and foremost intervention to pave the way for further improvements. Amendments in cooperative law must match the emerging needs and new types of cooperatives. Beyond administrative procedures, clauses regarding social priorities also need to be included for further empowerment of cooperatives. In addition, institutional restructuring would work in a complementary manner to enact and enforce the legal framework. Cooperatives fall under the jurisdiction of three separate ministries. Instead, an autonomous agent may be more appropriate, operating as an ombudsman and promoting good practices. A third policy option within the institutional framework would be progressive taxation for cooperatives. Cooperatives are in the market without the competitive edge and the capital accumulation of a corporate structure. Progressive taxation of cooperatives and their produce would counterbalance their disadvantage in the market. This is not a direct subsidy or a protectionist measure but a regulatory framework and indirectly an instrument of social policy. Cooperatives, different from corporations, also perform certain social functions in tackling poverty and inequality and provide their partners with an opportunity for social empowerment.

There are also secondary institutional policy alternatives that may contribute to the sustained operations of cooperatives and expand their production capacity. The inclusion of social buying principles in public procurement programs may help democratize the market and open room for cooperatives in the market. Public procurement in Turkey makes up about 11% of GDP. However, coops can hardly enter into government bids and get a tender. Therefore, including social priorities and conditions in tenders to include cooperative participation would be a way to democratize the market and promote their

inclusion in the economy. Another policy alternative would focus on creating greater public awareness by adding Cooperativism into the Curriculum in Schools: Cooperative development in Turkey is still very experimental. Hence, people lack awareness of coops. Youth unemployment, NEET and young women exclusion from the labour market are all very high in Turkey. Teaching cooperativism may be a source of mobilization, especially for youth. Finally, improvements in IT enable the processing of large sampling numbers. Therefore, an online registration system may be used for monitoring, evaluating and data processing. The government has already established KOOP-BIS, which all cooperatives have to register. However, the data is still unavailable to the public and has not been thoroughly analyzed. A second dimension is a need for monitoring, evaluation and data processing done by cooperatives themselves. The use of aggregate data on cooperatives may help address problems such as overproduction of certain goods, concentration in certain areas, or potential areas of growth, niche markets, and new groups to be incorporated into the system.

Beyond the legal institutional policy alternatives, cooperatives need to undertake alternative approaches in their operational framework. One major issue is that cooperatives heavily rely on traditional sectors in production. Hence, they only target a very narrow segment in the market. Cooperatives need to innovate their products and their business model. They need to go beyond traditional modes of production, traditional goods, arts and crafts into things that have sustained demand in the market or find niche markets where they have greater competitive edge. For example, for women cooperatives, one major issue is that they all produce the same variety of goods and compete. Although many use e-commerce as an innovative strategy, they can't expand their market share because they face competition from other women cooperatives. To avoid such competition, they need to seek ways of building cooperative partnerships and networks. Agriculture and food are complementary areas where agriculture cooperatives may supply basics to women cooperatives which would process them, and then transportation cooperatives may contribute to logistics and shipping, and maybe some women cooperatives will help with care services. Hence a complementary cooperative network would be built.

Cooperatives face fierce competition from corporations as their scale of operation is incompatible with multinational, multi-tasking corporate structures (Güloğlu and Kormaz, 2011). The general tendency of forming cooperative unions and alliances based on single sectors or economic activity is a limitation under current economic circumstances. Cooperative networks rather than unions provide greater room for cooperation and manoeuvring against corporate challenges in the market. Networks that are vertically and horizontally organized will contribute to capacity enhancement.

Cooperatives need to overcome their organizational weakness and paternalist leadership by focusing on democratic management. Of all the cooperatives included in this study, only one had a rotation system for the cooperative leader and board. Many cooperatives lack the resources and incentives for research and development and technical improvement. However, they need to seek low-cost, user-friendly digitalization options for their internal operations and greater outreach. Cooperatives also need to undertake the task of training partners with digital know-how for operational and managerial efficiency. Online marketing, e-commerce, information sharing via social media are openings for smaller groups or startups.

## 6. Conclusions

The preliminary findings of the research indicate that the state played a leading role in not only legislating and regulating the cooperative framework, but also in forming cooperatives, determining priority areas of cooperativism and in instrumentally using cooperatives as part of its political and economic agenda of modernization, development and social cohesion. However, cooperatives that participated in this study face many problems. These problems can be classified into four distinct categories: legal institutional problems, operation issues, managerial weaknesses and external dependency. The first category refers to their relations with the central authority and its regulatory framework. The second category has to do with internal dynamics, due to limitations in size, traditional operation, lack of technical capacity and inability to diversify activities and expand. The lack of democratic management further intensifies the internal limitations. Other reasons behind this weakness of cooperative structures are external dependency, lack of sustained economic returns, the weak organizational ties within and between cooperatives, the small scale of cooperatives not being a good match in the neoliberal market.

It is also important to note that unless policy alternatives come directly from the cooperatives and their partners, they will no more than reinstate the authoritative structure imposed by the state and reduce cooperatives to merely an agency of state economy or to a charity organization. Direct democratic action, a locally distinguished repertoire of cooperative activity, strategic planning involving innovation and technical expansion are crucial for a revitalized cooperative development that will cater to the needs of the people rather than the state's political agenda.

Last but not least, cooperatives are not just economic units. They also fulfil a social role of empowering the underdog in the system. The social empowerment task of cooperatives needs to be emphasized to create an all-encompassing approach towards local development by way of cooperatives. Given the existing trends in global migration, increasing poverty and inequality worldwide, cooperative solutions need to be promoted for their role in economic participation and social empowerment.

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## Financial Options or Social Grants Available for Start-up Co-operatives

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### Abstract

The aim of this paper is to investigate the finance options or social grants available for start-up co-operatives in Soweto. Most rural communities in South Africa struggle with unemployment, which leads to poverty. To address these difficulties, many residents work collectively in cooperatives, united in the belief that they can achieve more than when working individually. The South African government is dedicated to supporting the growth of co-operatives in South Africa, especially in previously disadvantaged communities. Government business support is offered financially and non-financially. However, this paper focuses on the financial options or social grants available for start-up co-operatives. The objective of this paper is to determine the finance options available for start-up co-operatives, to determine the co-operatives policies that govern co-operatives and to determine the effectiveness of social grants on start-up co-operatives. Government policy can have a great impact on co-operative development, through its policies in relation to, corporate governance, market regulation, tax legislation and social and economic policies. A non-probability sampling approach was used, and 12 start-up co-operative members from Soweto were purposefully selected for qualitative interviews, in order to analyze the finance options available. The NVivo software was used to organize, analyze and find insights in the qualitative data. It was found that most start-up co-operatives are not aware of the funding options available to them. However, they need other forms of assistance besides financial assistance such as new equipment, employee and management training. It is found that the cooperatives find it difficult to succeed, be sustainable, be measurable and perform. It is recommended that co-operatives learn how to be self-sustainable for when instances when the economy is not favorable to the growth of the sectors. Furthermore, intervention and investigation into the inner workings of the co-operatives is necessary as to understand the mandate that these co-operatives need to accomplish.

**Keywords:** Co-operative, Financial Support, Government Policy, Government Support, Social Grants.

### 1. Introduction

In South Africa, the majority of rural populations face unemployment, which leads to poverty (Klasen and Woolard, 2009). To address these issues, many residents form co-operatives, believing that by working together, they can accomplish more than if they worked alone (Majee and Hoyt, 2011). A co-operative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise (Continuing Professional Development (CPD), 2018). A co-operative is a jointly owned and democratically controlled enterprise. Over the years, there has been a rising recognition of

the role of cooperatives as critical instruments for socioeconomic growth around the world (Khumalo, 2014).

In South Africa, co-operatives rely on government funding to be started (Okem, 2016). However, one of the most significant impediments to the sustainability of these new co-operatives is a lack of financial resources.

Government policy can have a positive impact on co-operative development, through its policies relative to market regulation, corporate year period governance, tax legislation, economic and social policies. The government of South Africa has issued a policy statement on the development and support of developing and emerging cooperative enterprises (Department of Trade and Industry (DTI), 2004a). The policy focuses on emerging cooperatives although it also considers and supports cooperatives formulated under the previous (apartheid) government. Furthermore, to enhance the development of cooperatives, the Department of Trade and Industry (DTI) established a Cooperatives Development Unit which was in charge of reviewing policies and strategies, promoting the cooperative concept and coordinating donor activities and government institutions. Borda-Rodriguez & Vicari (2014) noted that in South Africa there appears to be overlapping and confusing support for co-operatives among government agencies, and that there is a need to harmonise all government policies and actions around co-operatives. The objectives of this paper is to determine the finance options available for start-up co-operatives, to determine the co-operatives policies that govern co-operatives and to determine the effectiveness of social grants on start-up co-operatives.

The South African government is committed to fostering the expansion of co-operatives in the country, particularly in previously underserved areas (Rena, 2017). Government business support is offered financially and non-financially. However, this paper focuses on the financial options or social grants available for start-up co-operatives. The Co-operative Incentive Scheme (CIS) is a 100% grant for registered primary cooperatives, with the goal of improving co-operative companies' competitiveness and profitability of conducting business through an incentive that promotes Broad-Based Black Economic Empowerment (BBBEE) (Department of Small Business Development (DSBD), 2021). The scheme's parameters provide that 70% of the money can be spent by cooperatives on infrastructure, machinery and equipment, commercial vehicles, technical advancements, and tools (Nyanda, 2019). The Small Enterprise Finance Agency (SEFA) promotes and facilitates the growth of co-operative enterprises by providing accessible funding to entities that are part of the social economy and contribute to the creation of jobs and common community wealth, as well as investing in community projects with significant social impact, such as waste recycling, agriculture, and so on (Small Enterprise Finance Agency (SEFA), 2021).

Inadequate finance to support Small Medium Enterprises (SMEs) appears to be a challenge in terms of how or where to get funding and how government policies are structured in order to respond to the ongoing changes (Olaniyi & Kibuuka, 2016). In the Gauteng Province, it was established by Twalo (2012), that 54.2% of co-operatives were set up by the state and only 24.1% were self-initiated. Although co-operatives were set up by the state and the community members, they have not succeeded in closing the unemployment and poverty gap. The government has established the National Community Development Worker Programme and the Community Practitioner Programme which employ 6000 community workers to support co-operatives (Westoby, 2014). This number



of community workers is not even close to a quarter of the entire population of the Free State community, which was approximately 2.4 million in 2014, which was only 5.1% of the national population. This shows that the program was not that effective.

The Rural and Community Development Fund was designed to promote sustainable change in social and economic relations and supporting the goals of growth and development in the rural economy, through financing of sustainable co-operatives (The Department of Agriculture, 2019:9). To improve the competitiveness of the co-operatives in the Eastern Cape province Imvaba fund has been structured as part loan finance and part developmental (start-up capital) (The Department of Agriculture, 2019:91). While the main objective of the Mpumalanga Economic Growth Agency (MEGA) is to leverage trade and investment and provide funding for SMEs and co-operatives so as to foster economic growth and development (The Department of Agriculture, 2019:103). For co-operatives to succeed in receiving financial assistance, Gurmessa & Ndinda (2014) state that there is a need for entrepreneurs to be well prepared, to have good projects, to have access to banks and bank professionals, who will be able to support and handle co-operatives. However, banks do not understand how co-operatives function and their policies require cooperatives to have collateral.

The co-operatives policy is essential to the government's economic policy in that it encourages the growth of new economic enterprises, such as cooperatives, by diversifying ownership, size, and geographic location (DTI, 2004b). Through the South African Co-operatives Act 14 of 2005, the government is committed to providing a supportive legal environment for co-operatives to develop and flourish, as well as enabling co-operatives to register and acquire a legal status separate from their members by facilitating the provision of targeted support for emerging co-operatives (Companies Intellectual and Property Commission (CIPC), 2007). This act also provides for the formation and registration of co-operatives, as well as the establishment of a Co-operatives Advisory Board (CIPC, 2007). The co-operative principles of good governance give a framework for co-operatives to build their own operational rules that enforce the principles of good governance based on co-operative values and principles, as well as the co-vision, operative's mission, and objectives (Government Gazette, 2019:4). Co-operative managers, board of directors, and members are guided by the principles of good governance for co-operatives to ensure that all legal obligations are met (Government Gazette, 2019). Legal obligations include co-operatives are registering with Companies Intellectual and Property Commission (CIPC), being tax compliant, being democratic by working together, contributing equally by helping each other achieve their goals.

The Co-operative Act of 2005 of South Africa stipulated that all cooperative societies must be self-sustaining and self-reliant. (Rena, 2017). Co-operatives need to self-regulate as per Co-operative Act of 2005. Furthermore, if a co-operative gets funding or social grant within the institution of the government, the basis of the co-operatives' success is based on the understanding the act and regulation. Additionally, the funding structure is based on what the co-operatives use the funding for, that will then assist in the success of the co-operative. The aim of this paper is therefore to investigate the finance options or social grants available for start-up co-operatives in Soweto.

## 2. Materials and Methods

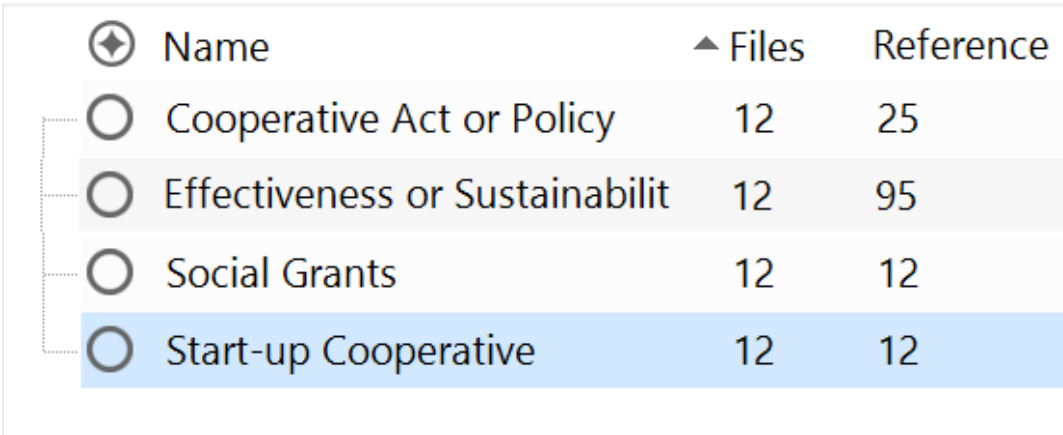
A non-probability sampling approach was used, and 12 start-up co-operative members from Soweto were purposefully selected for qualitative interviews, in order to analyze the finance options available and the role of the co-operatives on local economic development. Challenges experienced during the process of collecting data included not finding co-operative members in their establishments due to the rainy weather, the Covid19 pandemic or loadshedding. The NVivo software was used to organize, analyze and find insights in the qualitative data. Content analysis was performed.

The steps used for content analysis using NVivo included using queries and running such as word query. The interviews were transcribed, and then the data were coded based on the factors. Following are the extracts for conducting content analysis for this paper from NVivo.

## 3. Results

The results section should be divided into sub-headings based on key findings from the study. This section may be divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation, as well as the experimental conclusions that can be drawn.

### 3.1. Data sets

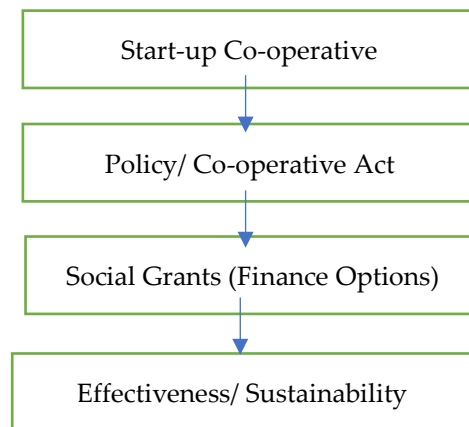


Name	Files	Reference
Cooperative Act or Policy	12	25
Effectiveness or Sustainability	12	95
Social Grants	12	12
Start-up Cooperative	12	12

**Figure 1: Data sets in the collections section of the research study**

The data sets were created using four major categories: co-operative act or policy, effectiveness or sustainability, social grants and start-up co-operative. They are further described in the below figure 2.

### 3.2. Models and Relationships



**Figure 2: Model of Determining the Effectiveness of Social Grants on Start-up Co-operatives**

This diagram depicts the relationship between the variables. The effectiveness or sustainability of a co-operative is determined by the availability of grants or finance options. Furthermore, how the co-operative manages the received grants will depend on whether the co-operatives follow the policy or co-operatives act, or not. If a start-up co-operative has social grants or is financially supported, it could be effective and sustainable. However, in order for the start-up co-operative to be effective or sustainable, it should be in line with the policy that governs cooperatives or co-operatives act. Therefore, if the start-up co-operative is in line with the policy or co-operatives act and there is financial support, then that start-up co-operative is determined to be effective or sustainable because it will be in a better position to manage the administration of its co-operative.

Initial themes were developed from the interviews for this research. The results are depicted in Figure 3.

### 3.3. Word Similarity Cluster Analysis

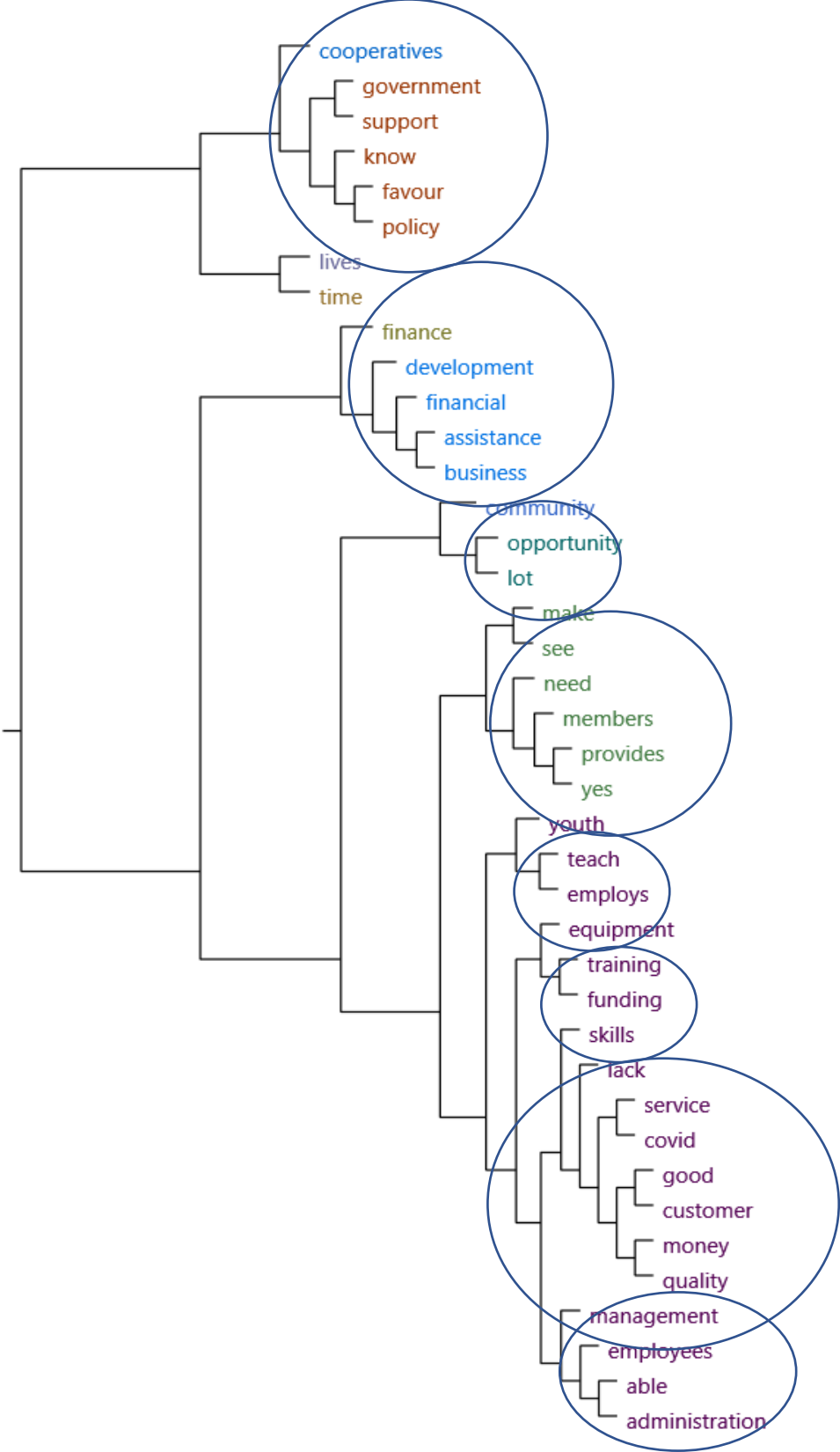


Figure 3: A Cluster Analysis of Word Similarity

Figure 3 depicts the results from the respondents in a cluster analysis of coded material using word similarity. For example, the first circle shows that the majority of respondents stated that they need government support and that they could use the policy to know what they need in terms of government support, provided that the policy that favours the co-operatives. In the second circle, the respondents further stated that business and assistance are developed by financials. The third circle depicts respondents' reason for starting a cooperative is because they think that there is lots of opportunities in the community, in terms of hiring the unemployed community members or even providing services or selling goods to the community. Respondents highlighted in the fourth circle that you must see the needs of the co-operative members to provide and make what is needed. The fifth circle, most respondents stated that they employ unskilled youth and then teach them the necessary skills. Furthermore, the sixth circle shows that most co-operatives emphasized that they do not just need funding, but they mostly require new equipment and training in order to be sustainable. In the seventh circle, most co-operatives pointed out that they lack the necessary skills to run their business. Additionally, co-operatives have lost good customers due to covid as most customers have lost their jobs and do not have money to support these co-operatives. Lastly, in the eighth circle, most respondents stated that with an able administration, employees can be well managed.

#### **4. Discussion of Research findings**

It was found that most start-up co-operatives are not aware of the funding options available to them. . However, these participants pointed out that if they could receive financial assistance from the government, they would be able to be sustainable and create more jobs by hiring more people: "We need funding in order for our co-operative to be able to afford to hire and pay more employees". One of the participants expressed that they need other forms of assistance: "Our co-operative could do better with some form of training and assistance to buy more equipment". Additionally, findings from the literature review suggests that creating and a sound platform that is useful especially in the development of semi-urban and rural areas of South Africa can be achieved by developing and promoting co-operatives. There is a need for interventions within the sectors of the cooperatives.

#### **5. Conclusions**

In South Africa, the Co-operative Act of 2005 underlined that all co-operative societies must be self-sustaining and self-reliant (Rena, 2017). Through effective and efficient services provided by co-operatives to their members, a successful, dynamic, autonomous, self-reliant, and self-sustaining co-operative movement may play a vital part in the economic, social, and cultural development of South Africa (DTI, 2004b). It is recommended that co-operatives need to learn how to be self-sustainable for when instances when the economy is not favorable to the growth of the sectors. It is found that the co-operatives find it difficult to succeed, be sustainable, be measurable and perform. This is because intervention, investigation into the inner workings of the co-operatives is necessary as to understand the mandate that these co-operatives need to accomplish. If proper interventions are developed for the cooperatives to succeed with the goal of making sure that DTI, he community is served

and the mandate of attempting at the employment of the community and not that of profitability, then the cooperatives have a chance at sustainability purely on the basis that they have done the necessary upskilling and understanding of the mandates set before them so to serve the community and the institutions making it possible to for the cooperatives.

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