Collaboration among Government Co-operative Supporting Organisations in Innovations Design and Dissemination to Primary Co-operative Societies in Tanzania

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Abstract
Most primary co-operatives in Tanzania have experienced various challenges including resources deficit, mismanagement, inadequate co-operative education and global competition among others making them unable to design and utilise sound innovations. In realization of such challenges and recognition of their socio-economic potential, several government co-operative supporting organisations (GCSOs) have been established to facilitate co-operative growth and development. This study assessed the extent of collaboration among GCSOs in innovations design and dissemination to primary co-operative societies (PCSos) in Tanzania. Specifically, the study established the initiatives undertaken in each innovation chain of the studied GCSOs in terms of innovation ideas generation, conversion and dissemination to PCSos in the past fifteen years (2007-2022) period; determined the extent to which GCSOs have been collaborating in areas of innovations design and dissemination to PCSos and established the innovations designed and disseminated in collaboration among studied GCSOs to PCSos in the period under study (2007-2022). The study adopted the case study research design using multiple cases where five cases were picked. The study population included the selected GCSOs operating in Tanzania which formed the unit of analysis for this study. Primary data were collected from GCSOs executives and staff using focus groups discussion and key informants' interviews. Documentary review and non-participant observation was also used. The findings show that, the innovation chains of most of the studied GCSOs were weak and disjointed. Equally, innovation collaboration was found to be lacking in most of the GCSOs. Moreover, limited traces of inter-organisational collaboration in innovations design and dissemination to PCSos were found. It is advised that GCSOs should work to ensure innovation value chain strengths through genuine allocation and prioritisation of resources. More efforts such as setting innovation units and or hubs, among others to enhance innovation activities and collaborations within GCSOs are advised. Such efforts may eventually graduate into inter-organisational collaborations which are currently missing.

Keywords: Collaboration, Co-operatives, Innovation, Design and Dissemination

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INTRODUCTION

In recent years, there has been growing interest in inter-organisational arrangements for innovation activities. This has been necessitated by the complexity of the innovation process and the difficulties faced by organisations in undertaking innovation activities in isolation (Müller *et al*., 2016; Zahoo & Al-Tabbaa, 2020). Several definitions of the term organisational collaboration exist. In most of such definitions, trust and mutuality is the central

piece (Stuart *et al*., 2012; Kozuch *et al*., 2016; Gustaffsson & Magnusson, 2018). Thomson and Perry (2006) defined organisational collaboration as a process involving shared norms and mutually beneficial interactions among two or more agencies. In the context of this study, organisational collaboration refers to a situation where two or more co-operative supporting organisations work jointly along the innovation chain activities while capitalizing on their trust and shared resources to enable shared benefits i.e. innovations dissemination to co-operatives.

Several organization's collaboration relationships do exist that may include an *ad hoc* or a more structured way. *Ad hoc* collaborations occur when organisations interact with each other in an informal way and without certain regularity. A more structured collaboration may vary from a weak collaboration, when one organisation has more power than the other i.e. mergers, acquisition, outsourcing, distribution, licensing, franchise, etc to a strong collaboration, when organisations have certain power equality i.e. co-operatives, networks, consortium, alliances, joint ventures, virtual enterprise, etc (Romero *et al*., 2008; Ranaei *et al*., 2010; Diir & Capelli, 2018). This paper focused on assessing all forms of existing organisational innovation collaboration relationships.

Numerous grounds exist in empirical literature on the necessity for public organisations collaboration in innovation activities. It includes strengthening research and development (R&D) capacity, increased competitive advantage e.g. technology and marketing strategies sharing (Cricelli *et al*., 2021), cost saving, human capital development, risk reduction and increased access to new knowledge, expertise and research networks. Others are enhanced collaborative design of new products or services and increased legitimacy in maintaining control over proprietary technologies (Greco *et al*., 2020; Borrell-Damian *et al*., 2015; Ankrah & Al-Tabaa, 2015). Moreover, public organisations may collaborate in accessing innovation training and sustaining innovation chains (Minarelli *et al*., 2015; Maietta, 2015). Innovation is widely discussed and understood as a factor that positively influences organisations' competitiveness (Bes & Kotler, 2011; OECD, 2012). It is an extensive concept that can be perceived in a number of different ways (Smith *et al*., 2008). There has been no consistent definition of the term innovation and hence numerous definitions do exist (Garcia & Calantone, 2002; Cirera & Maloney, 2017). The World Bank (2006) defined innovation as the process by which individuals or organisations master and implements the design and production of goods and services that are new to them, irrespective of whether they are new to their competitors, their country or the world. Borrowing from this definition, this paper regards innovation as the process by which the co-operative supporting organisations create and offer goods and services that are new to them, including changes in an old or existing way of doing things, irrespective of whether they are new to other organisations or individuals elsewhere that are intentionally directed at improving co-operative performance.

Over decades, co-operatives, for the most part the primary co-operatives, have been considered as organisations with the potential to foster socio-economic development and pull communities out of poverty (UN, 2011; FAO, 2012a; Münkner, 2012). They offer numerous innovative opportunities that include reduced production cost, value

additions, collective marketing, credit, among others. Despite of such importance, there have been debates in the developing world over co-operatives' ability to deliver on their objectives (Borda-Rodriguez *et al*., 2013; Vicari & Borda-Rodriguez, 2014). There has been broad recognition that, in developing countries mainly in Africa, co-operatives were submissive to central planning by governments imposing control over them rather than their empowerment (Birchall, 2004; Francesconi, 2009). They were also subjected to many challenges including weak supporting organisations, mismanagement, competition and lack of co-operative education (URT, 2006; Chambo, 2009; Msonganzila, 2013).

Most co-operatives, particularly in the developing world, have for long time been unable to devise innovative products or services to address various socio-economic challenges facing them (World Bank, 2012; ICA, 2013). This shortfall is mainly attributed by resources insufficiency in terms of skilled personnel, financial, physical and technological facilities (Gamal *et al*., 2011). The situation has been exacerbated by the harsh circumstances in which most co-operatives have been operating involving government interference which in turn denies co-operatives their socio-economic empowerment. Likewise, inadequate co-operative education and training, mismanagement, embezzlement and the challenging competitive forces have also exerted considerable perverse pressure to co-operatives. As a result, most co-operatives particularly the PCSos, which are the focus of this paper, are unable to undertake independently and fully some of their operations (Msonganzila, 2013) including innovation activities (World Bank, 2012; ICA, 2013).

Given such situation, most of the required innovations thus, are anticipated to be originating from government organisations (Tefera, 2008; Franks, 2011; DFID, 2014). Governments play an important role in encouraging, supporting, promoting and disseminating innovations (Sandalow, 2011; Moussa *et al*., 2018). They set innovation policies and standards and investing in fundamental researches. Equally, they provide educated workforce and protect intellectual properties (Sandalow, 2011). It is from realisation of this multiple innovation roles that, some governments have established organisations to facilitate some of its innovation mandates. Among such organisations, in Tanzania, are the government co-operative supporting organisations (GCSOs)-referred to as government institutions responsible for facilitating co-operatives in terms of innovations creation and dissemination, education and training, promotion, regulation, production, marketing, etc. Several of the GCSOs have been established and mandated by government with several roles including facilitating innovations dissemination to PCSos. They include the Moshi Co-operative University (MoCU), Tanzania Co-operative Development Commission (TCDC), Small Industries Development organisation (SIDO), Co-operative Audit and Supervision Corporation (COASCO), Tanzania Research Institutes e.g. Tanzania Coffee Research Institute (TaCRI), Vocational Education and Training Authority (VETA) among others.

To facilitate their mandates, GCSOs in Tanzania have been provided with direct government resources in terms of funding, personnel, technological and physical facilities. Despite the government support to GCSOs, empirical literature shows that few

innovations are disseminated from GCSOs to PCSos (URT, 2006; World Bank, 2012; ICA, 2013; Njau *et al*., 2019). This paper assumes that, inadequacy in innovations disseminated to PCSos is resulting from lack of collaboration among GCSOs to hasten innovations design and dissemination to PCSos. Studies have shown that, organisational collaboration enables sharing of risks and resources, enhances R&D and provides access to information and solutions (Tomlinson, 2010; Kozuch *et al*., 2016; Müller *et al*., 2016; Body *et al*., 2020).

It also optimises the use of resources, reducing duplication of activities and minimises confusions that might arise from various actors working in isolation but serving the same clients e.g. PCSos. Tidd and Bessant (2015) emphasised that, the need for collaboration and or networking among organisations is pressing and urgently needed in organisations that believe in innovation as a strategy. Such collaboration need is even more crucial in public organisations, which are mainly the service providers unlike their private counterparts which are largely profit oriented. This implies that, to GCSOs, collaboration is more crucial as they should be partnering in services provision since they share more or less similar end goals i.e. serving PCSos. Despite the importance of collaboration among organisations, it is not known, to what extent do the GCSOs in Tanzania have been collaborating among one another to enable innovations design and dissemination to PCSos. There is scant literature in Tanzania and elsewhere on GCSOs collaborations in innovations design and dissemination to PCSos. For, example, while the study by Munanka (2008) focused on assessing farmer-based organisations networking in innovations dissemination, a study by Novkovic and Holm (2011) focused on collaboration among co-operative organisations as source of innovations. None of the studies concentrated on the GCSOs.

This paper therefore, unravels the existing gaps by assessing how the GCSOs have been performing in activities pertaining to innovations design and dissemination to PCSos in Tanzania. Specifically, the objectives of the paper were to: (i) establish the initiatives undertaken in each innovation chain of the studied government co-operative supporting organisations in terms of innovation ideas generation, conversion and dissemination to primary co-operative societies in the past fifteen years (2007-2022) period; (ii) determine the extent to which government co-operative supporting organisations have been collaborating in areas of innovations design and dissemination to primary co-operative societies and (iii) establish the innovations designed and disseminated in collaboration among studied GCSOs to PCSos in the period under study (2007-2022).

The paper draws insights from Innovation Value Chain (IVC) Model (Hansen and Birkinshaw, 2007) and the Negotiated Order Theory (NoT) by Strauss, (1978). The IVC model suggests that, effective innovations dissemination occurs when the innovation activities occur in chained process right from ideas sourcing, conversion and dissemination. Equally, the NoT is based on the idea that a social organisation is constructed through everyday interactions and or collaboration and thus to accomplish tasks in social setting people chiefly negotiate with each other. The negotiation here implies the interactions, collaborations and or strategies actors use in the process of mutual adjustment. The theory considers collaboration as fostered by

awareness among stakeholders on the need to achieve a shared understanding of a problem and the need for collective responses to it. Its analytic focus lies on collaboration rather than competition (Nathan & Mitrof, 1991).

In this study, the IVC model was used to identify the innovation activities undertaken at each innovation chain of the studied GCSOs and its linkage to PCSos. Equally, the NoT was used to establish the extent to which studied GCSOs considers collaboration in innovations design and dissemination to PCSos as their shared need that requires joint initiatives. The IVC model and NoT were thus, applied in the study each complementing one another. Despite its wide applicability in various studies, the IVC model is critiqued for being developed based on large organisations and generally used to analyse the performance of high-tech organisations (Ganotakis & Love, 2012). Equally, the NoT is critiqued for its inability to offer a comprehensive model for collaboration ignoring wider structural factors like power relations, rules and historical forces (Benson, 1977).

METHODOLOGY

The study areas: The study covered Dodoma, Kilimanjaro and Dar es Salaam regions. The rationale for focusing on the three regions is that, it is where the key GCSOs are located (with their head offices located in the three regions). The focus was only on GCSOs though there are other member-based and private organisations supporting PCSos. The GCSOs were chosen because apart from receiving direct resources from the government, they are also mandated by the law to enable the growth and development of co-operatives in the country (URT, 2013).

Research design: The study employed the case study design using multiple case studies (MCS). Multiple case studies approach was used because of the fact that the evidence generated from it is strong and reliable (Baxter & Jack, 2008) as compared to a single case. Moreover, MCS was chosen because the study aimed at identifying similarities and differences in empirical findings from different cases to enable analytic generalisation (Collis & Hussey, 2014) as opposed to statistical generalisation. F ive cases, chosen based on the study scope (Yin, 2004) generated the required empirical findings. Theoretical replication was assumed meaning that, the selected cases were considered to be different, due to varying GCSOs core roles and hence expected to produce differing results.

Study participants/population: The study population included selected GCSOs operating in Tanzania. Thus, the GCSOs formed the unit of analysis for this study. This implies that the participants selected for the study and their responses reflected the specific study cases facts i.e. GCSOs and not individual situation or fact. Therefore, to ensure quality data collection the study participants were selected purposively from key organisations' sections. This included all heads of technical and academic departments/ units and at least two staff from each department/unit who were conversant with innovation activities. A total of five GCSOs, three quasi co-operative-based organisations i.e., TACRI, VETA and SIDO and two purely co-operatives supporting organisations i.e. TCDC and MoCU formed the unit of analysis for this study. Quasi co-operative-based organisations refer to organisations whose primary role is not to serve co-operatives, but deal with them as one among their key actors. The vice-versa is true for co-operative related

organisations. The reason for this choice is that, the study focused at generating data from all forms of GCSOs based on their core functions. Likewise, since the study involved multiple case studies approach, few cases (identified by research scope) were sufficient to provide the necessary data for the study (Yin, 2004).

Data sources: Data collection was done through a key informants (KIs) interview guide, observation guide, focus group discussion (FGD) guide and an audio recorder where study participants consent was sought before recording them. Data collected from KIs comprised of GCSOs executives, FGD participants involving heads of departments/units and staff, GCSOs documents i.e. innovation policy and strategic plan documents and direct observation of innovation facilities available. Fourteen FGDs sessions, three per each GCSO were conducted except at TaCRI where two FGDs were conducted as data saturation was attained. Several FGDs were conducted in the same organisation aimed at generating more facts and verifying some studied aspects. Each FGD comprised of six to eight participants. Generally, there is no definitive numbers of focus group participants. Stewart *et al*. (2007) indicated that, six to twelve is an ideal number as too many participants may be difficult to manage. Likewise, fewer than six tend to reveal less information and the discussion may be dull.

Differing opinions from different study groups of the same GCSO, especially those requiring organisation rating were harmonised using validation meetings. The meetings comprised of participants from all studied groups. The standardied scale and criteria for rating the specific GCSO was used where it was clarified and agreed upon by study participants prior the meetings. Equally, innovations assessment in this study covered fifteen-year period (2007-2022). The duration was arbitrarily chosen and considered to enable sufficient identification of the innovations designed and disseminated to PCSos.

The study conceptualisation: Three key aspects were considered in this study. First the GCSOs innovation chains analysis in terms of innovative ideas generated and converted into useful products or services as well as those disseminated to PCSos were captured. This was measured in terms of the number (quantity) of innovative ideas generated, converted and disseminated to PCSos. Second, traces and extent of GCSOs collaboration in areas of innovations ideas generation, design and dissemination were assessed. This was measured in terms of actual innovations in place i.e. physical verification of the quantities of innovative ideas in place and verification of those which were converted into useful products or services. Moreover, verification was done to establish innovations that were disseminated in collaboration among studied GCSOs to PCSos in the period under study (between 2007 - 2022). Third, the extent of the GCSOs collaboration was captured in terms of the level of innovation engagement. This was captured by measuring study participants attitudes or opinions on the aspects regarding GCSOs innovation collaboration.

Data collection and analysis was an iterative process. Some analyses were done during data collection including responses harmonization on the GCSOs ratings. Data gathered through field notes and recording were transcribed prior to its analysis. Content analysis was used to analyse data from FGDs and KIs. The Atlas.ti Computer Software was used to organise and analyse some data. The data analysis involved

scouring for meanings, patterns, surprises, contradictions and silences in the textual data guided by research questions and theories. Data were then analysed in three stages including data reduction i.e. screening, coding, condensing and transforming empirical data. The purpose of data reduction was to ensure that data can speak authentically. Secondly, data display followed involving reduced texts and tables and, thirdly, conclusion was drawn (Taylor *et al*., 2011). Finally, case studies in form of qualitative interpretations and descriptions were documented.

FINDINGS AND DISCUSSION

Government co-operative supporting organisations profile

This study involved five GCSOs where four of them are public organisations and one is public-private organisation (Table 1). The inclusion of such organisations in the study was crucial for providing comparative grounds on their innovation chain analysis and collaboration among themselves. Equally, the studied GCSOs have all been getting some resources mainly funding and others from the government.

Table 1: GCSOs Profile

No	GCSO	Legal existence	Vision	Mission	Key mandates
1	MoCU	Government organisation established under the Universities Act No.7 of 2005 (Cap 346)	To become a centre of excellence in co-operative education and practice	To provide quality education, training, research and advisory services to enhance co-operative development	Providing education, training, research and advisory services to enhance co-operative development. It focuses on co-ops development, rural transformation, business studies, ICTs, legal matters etc.
2	TCDC	Government organisation established by Co-operative Societies Act No. 6 of 2013	To become a leading organisation in Africa that fosters the development of modern and commercial co-operatives that meets global demand of the co-operative movement	To provide efficient and effective regulatory and promotional services for attainment of vibrant, modern and commercial co-operative societies in Tanzania	Regulate and promote co-operative sector. Promote, provide education & training and encourage development of viable and sustainable co-operatives etc. It also regulates co-operatives-register, deregister, providing legal advice, etc.
3	TaCRI	Public-private entity legally constituted in 2001. Incorporated as company limited by guarantee & without share capital in Companies Ordinance (Cap 212). Owned by stakeholders serving.	To contribute to the transformation of the Tanzanian coffee industry to sustainable prosperity	To develop and disseminate appropriate technologies to improve coffee productivity and quality in Tanzania	Providing coffee producers with relevant practical technological innovations and advice to improve productivity and quality and enhance profitability and livelihoods of producers.
4	SIDO	Parastatal organisation established by the Act of Parliament in 1973	To be a leading institution in promoting development of SMEs for sustainable industrialization in Tanzania.	To create, promote and sustain innovative entrepreneurial base by providing SMEs with relevant capacity building services to enhance their contribution to industrial development	Technology innovation and commercialization, technology and product development, incubator services, artisan support programmes, workplace SMEs training etc.
5	VETA	Government agency established by the Act of parliament in 1994 (Cap 82 revised edition 2006)	To become excellent organisation capable of supporting national socio-economic development in the global context	Ensure provision of quality vocational education and training that meets labour market needs	Providing, coordinating regulating and promoting vocational education and training. Financing-managing VET fund

Innovation initiatives among government co-operative supporting organisations

Innovation initiatives of MoCU: Several innovation initiatives have been taken by MoCU particularly on creative ideas generation. As a result, a number of appealing innovation plans feature at this stage affirming that personnel create good ideas across the organisation (Table 2). Nevertheless, numerous ideas remained in literal writings left to collect dusts in shelves and cupboards due to lacking coordination and implementation mechanisms. This means that several of the creative ideas had not graduated to conversion stage. One of the KIs from MoCU affirms that:

> *Most creative ideas remain unimplemented since we lack mechanisms to facilitate ideas tracking, initiation and implementation* (KI 1, MoCU, Feb. 2018).

This means that, personnel had plenty of creative ideas that could be turned into innovations but lacking mechanisms to track, organise and convert them into physical output. As a result, an analysis of the second innovation chain i.e. ideas conversion, revealed that not all creative ideas were converted into innovation outputs. This implies that, it may always be easy to have many creative ideas but turning them into useful products or services requires diligent organisation's determination and resources commitment. Such determination and resources commitment was reported to be inadequate. Moreover, some innovations were developed not for the dissemination purpose but for attaining some academic qualifications and on job promotions. As a result such innovations did not reach the targeted users or beneficiaries including the PCSos.

Additionally, collaboration among junior and senior staff within and across departments or units on innovation activities was reported to be minimal. This partly, may translate as to why many creative ideas were present but remain unconverted into physical products or services that could be disseminated to PCSos. Likewise, most available innovations did not arise from comprehensive innovation research and or innovation needs assessment compromising the possibility to fully integrate PCSos needs. It was revealed that, some innovations that managed to reach the PCSos were those with donor element or support and thus demanding its dissemination. Some other innovations, however, were resulting from MoCU's own initiatives. Likewise, limited innovation collaboration between MoCU and other GCSOs were established. One of the notable collaboration aspect was between MoCU and TCDC in sharing of co-operative researches findings. It was found that from 2021 the two organisations have been collaborating in organising and conducting an annual conference aiming at bringing together the co-operative stakeholders to share co-operative research findings. Nonetheless, there were no other existing collaboration aspects in other innovation aspects and among other studied organisations. This implies that, innovation collaboration has not yet received a due consideration at MoCU.

Table 2: MoCU innovation initiatives assessment

Innovation stage/chain	Initiatives undertaken within MoCU innovation chain between 2007-2022	Collaboration among GCSOs rating & extent
Ideas generation	1. Designing co-operatives legal clinic-where legal advice could be offered to co-operatives using MoCU legal officials at zero/low fee unlike other private legal entities or individuals charging high fees. The idea is only in papers, not institutionalised. 2. Enabling milk distribution channels to Kalali women dairy co-operative with the first centre within MoCU main campus. More others have later been established. 3. Loliondo cattle marketing co-operative where traders from Kenya and other East African countries could trade cattle- idea borrowed from Botswana. Not implemented as it suffers from lacking financial and or donor support (the idea was donor initiated). 4. Innovations design & experimentation unit to be manned with skilled staff specifically for researching, interpreting research findings and disseminate innovations to PCSos.	-MoCU was rated as poor in terms of collaboration with other GCSOs in innovation aspects.

	5. Facilitated "questioning member co-operatives" through members empowerment donor project (MEMCOOP) that enabled the formation of 32 co-operatives famously known as G32 co-operatives that later withdrew from KNCU and form own intermediary. 6. Facilitated formation of the integrated co-operative model (ICM) resulting from MEMCOOP where some agricultural marketing co-operatives and savings and credit co-operatives have been working together for services complementarities. 7. Formed regional centres that work close to PCSos in training and other support. 8. Formed the Co-operative Entrepreneurship and Innovation Centre (CEIC) with a business counselling chamber for PCSos and business entrepreneurs. 9. Establishing a radio unit to enable innovations sharing and transfer. The unit is not yet working as it is struggling to mobilise resources mainly financing to fully operate. 10. Designed distance education department to reach co-operators and wider community. 11. Designed foundational certificate courses specifically for PCSos mainly AMCOS and SACCOs members and leaders. The courses have been disseminated to PCSos. 12. Online distance learning (ODL) programme between Tanzania and Uganda offering correspondence courses. The courses have been disseminated to PCSos. 13. Designed a resource centre where PCSos and other stakeholders could access materials on co-operative education. The centre is not operating lacking resources. 14. Initiated MoCU-TCDC co-operative researches findings sharing forum/conference. 15. Designed co-operative member based software where PCSos members can access various information i.e. services/products offered, status-shares, savings and deposits, services/products accessibility conditions, etc. Idea originate out of the challenges facing Wazalendo SACCOs in efficiently reaching its members as it is a staff based co-operative headquartered at Moshi but with members scattered around 15 regions. 16.Enabled formation of WEUPE model i.e. *Weka Upate Pembejeo,* an innovation originated from MoCU training aimed at mobilizing smallholder paddy growers under SACCOs arrangement to have an extra scheme for accessing agro-inputs. 17. Group insurance schemes-some PCSos have formed warehouse receipt systems, etc. 18.Designed people with special needs group financial service i.e. Walemavu SACCOs in Dodoma region, demonstrating that such groups can do tangible things. 19. Getting into new co-operative ventures i.e. fishing, housing, mining and other sectors. 20. Designing students and staff co-operative innovations competitions-under CEIC. 21. Designed an innovation model named Afyabox where individuals can access health services information using mobile phones without relying on internet connectivity. This was own individual staff innovation under Millennium Cooperation Challenge. 22. Established a small scale research grant for junior researchers where up to TZS one million is available for each approved project or innovation proposal. 23. Designed co-operative based certificate, diploma, degree and higher degrees courses. Several graduates have been working in various PCSos across the country.	-No innovation collaboration is in place between MoCU and other GCSOs. -Existing collaboration in other aspects includes with CCA/ICA in terms of co-operative research and training, FK Norway in exchange of academic staff, Sordaton University-Sweden in exchange of staff and students, with SUA in staff training and organisational structure capacity building, with TCDC –once through a donor funded MIVARF programme.
Conversion	The ideas converted into products or services were number 2, 5, 6, 7, 8, 9, 10, 11, 12,14,16,17,18,19,21, 22 and 23.	Poor. Limited collaboration existed.
Dissemination	The practical products or services disseminated to PCSos were number 2,5,6, 7, 8,10, 11, 12, 14,16,17, 18, 19 & 23	No collaboration

Note: Collaboration rating: 1=Very Poor, 2=Poor, 3=Fair, 4=Good/High, 5= Very Good (criteria applied in all studied GCSOs)

Innovation initiatives of TCDC

The study identified a number of creative ideas generated at TCDC. Nevertheless, few creative ideas were turned into new products or services. Moreover, very few innovations were disseminated to PCSos (Table 3). This shows that, there was observable deficiency between existing creative ideas and those converted into new products and or services and again a sharp decline in those disseminated to PCSos. Furthermore, collaboration among personnel particularly those positioned at the headquarters, regional and district levels on innovation activities were missing. One KI at one of the district level said that:

> *Since its set up in 2013 TCDC staff have not come down to members to either introduce themselves or introduce their innovations, if there are any* (KI, TCDC, Feb., 2018).

This implies that, apart from reservations on innovations flow from TCDC, it is not yet well known to the majority of its actors. TCDC had limited innovation collaboration with MoCU on areas of co-operative researches findings sharing. This implies that, TCDC has neither sufficiently invested in own innovations dissemination nor at partnering in innovations dissemination to PCSos.

Table 3: TCDC innovation initiatives assessment

Innovation stage/chain	Initiatives undertaken within TCDC (formerly the ODRC) innovation chain between 2007-2017	Collaboration among GCSOs rating & extent
Ideas generation	1. Established the auditing fund where PCSos auditing fee comes directly to the commission unlike in the past where fees used to end at district and regional level. The fee has been raised from previous TZS 40,000 to TZS 500,000, a concern which many PCSos indicated that the fee is too high for majority of them to afford. The TCDC KI however insists that, the fee was raised for the purpose of ensuring they have sufficient fund to reach and serve the PCSos. 2. Established the research and training department to conduct research and feed PCSos on the findings and innovations emanating from such researches. The department exist, however it suffers from funding limitation. Collaboration between TCDC and MoCU in conducting a conference on sharing of co-operative research findings to co-operative stakeholders has been done in 2021 and 2022. Hence no innovations resulted from it have gone to PCSos. Likewise, there is no specific unit/department specifically coordinating innovation activities making it difficult to include PCSos innovations needs. 3. Established electricity supply co-operative society at Ifakara in Mvomero district, Morogoro region, where members have joined efforts to finance electricity connection fee and other equipment; a think out of box model. 4. In discussion to link some PCSos i.e. UWAZAMAM and Hombolo AMCOS producing grapes in Dodoma with SIDO and VETA to enable them acquire affordable wine processors to add value to the produce. Not in operation yet. Imported processors mainly from Italy cost at least TZS 25 million which was considered to be expensive for PCSos to afford. 5. Championed/influenced the government through the Prime Minister directives to bypass middlemen buying the five strategic crops-coffee, tea, cashew, cotton and tobacco to be marketed by PCSos/AMCOS using warehouse receipt system (WRS) and auctions for coffee. The idea is currently in enforcement originated from TCDC. 6. Apportioning TCDC staff based on their professional skills into regulators/auditors and promoters unlike the situation in the past where there were no such categories. The innovation is at designing stage. 7. Enforced the implementation of WRS after the first ever WRS Act of 2005, an idea that mainly stems from TCDC (formerly the co-operative department). The WRS covers crops like maize, coffee, cashew, paddy, sunflower, cotton and pigeon peas. 8. Introduction of licensing/certification of co-operative trainers where only trained staff will be allowed to train co-operatives. In planning stage. 9. Integration model of AMCOS and SACCOs with other emerging co-operatives e.g. housing co-operatives. The model is at planning stage. 10. Facilitating formation of grapes producing co-operative society's joint enterprise as a lobbying and advocacy forum for PCSos dealing with grapes. 11. Planning to mobilise VETA youth graduates to form a co-operative specifically for supplying technical equipment and technologies. The idea is still at drafting stage.	-TCDC was rated as poor in terms of collaboration with other GCSOs. -There was no innovation collaboration framework in place between TCDC and other GCSOs. -Existing collaborations includes those between TCDC and MoCU and SIDO on few training and research areas, TCDC and the central government/district councils in conventional training, TCDC and other development actors e.g. MIVARF programme under African Development Bank in training aspects.
Conversion	The ideas converted into practical products or services were number 1, 2,3, 4, 5 and 7	Limited collaboration between TCDC and MoCU
Dissemination	The practical products or services disseminated to PCSos were number 1,3,5 and 7	None

Innovation initiatives of VETA

Several creative ideas, some of which being successfully converted into innovations were recorded at VETA (Table 4). However, most of them were not disseminated to end users including PCSos. The VETA innovation policy document (2014) affirms that, there has been low impact of innovation due to small scope and fragmentation of innovation activities. The recorded innovations were mainly implemented by default and solely on individual initiatives and not based on research findings. As a result the developed innovations have sometimes not adequately considered the needs of the potential beneficiaries. Moreover, there was no formal innovation collaboration between VETA and other studied GCSOs. This implies that, VETA is currently operating its innovation activities in isolation denying PCSos and other clients the necessary collaboration benefits.

Table 4: VETA innovation initiatives assessment

Innovation stage/chain	Initiatives undertaken within MoCU innovation chain between 2007-2022	Collaboration among GCSOs rating and extent
Ideas generation	1. Designed eggs hatching incubators cheaper in price than imported ones, targeting various clients i.e. PCSos, individuals, SMEs, etc. 2. Designed maize milling machines for various stakeholders including PCSos where Mruwia AMCOS in Kilimanjaro region was among the beneficiaries. 3. Designed technology based equipment and machines including fish traps, water hysensis remover/washer, solar powered vehicle, cooking stoves, mortuaries, excavators, etc. 4. Designed crop processors/milling machines including maize milling machines, sunflower processors and filter machines, honey pressers, etc targeting various clients including PCSos. The machines are not yet commercialised. 5. Planning for VETA exchange of students and sending graduates to work in a firm owned by a Tanzanian in United States of America (USA). The innovation is at planning stage and likely to delay due to COVID 19 pandemic. 6. Designed the Vsomo: an innovation in which training are offered using mobile phone application (currently customised to Airtel mobile system), covering several training including motorcycle repairs, home based electrical training, mobile phones repair, cosmetology, welding and fabrication. Theoretical training are covered through Airtel Android App and then trainees attend compulsory physical practical sessions in nearby VETA station. More than 6,000 applicants have downloaded the app and about 3,000 learners countrywide had registered. However, no PCSo has benefited from the programme. 7. Dual apprenticeship training system "*mpango wa mafunzo ya uwanagenzi pacha*"- a block release training system whereby apprentices/trainees spend weeks in alternating between a training centre and their work places/industry. It is designed to help people without previous training and or experience to enter the job market as apprentices in craft of their choice by signing apprenticeship contract with respective industries. Implemented as pilot project between the years 2011- 2016 involving electrical, hotel management and automotive occupations and undertaken in support and collaboration with Hamburg Chamber of Skilled Craft-Germany. Several organisations including Power electronics, DerRM electrical contractors, Mount Meru Hotel, Serengeti Camps and Lodge, Toyota Tanzania, Diamond Motors, Tanzania Breweries, Twiga Cement, East African Elevators, among many others have participated in the programme. No PCSo had benefited from the training system. 8. Designed a machine for supplying oxygenated air to small scale volcanic blocks miners. Not yet disseminated to miners, lacked funds to acquire the technology. 9. Designed and constructed the modern abattoirs at Himo Kilimanjaro region. 10. Conducted the recognition of prior learning (RPL) programme-organised under the ministry of works and supported by ILO to recognise and award certificates to skilled individuals in informal sectors (the programme contract has expired).	-VETA scored poor in terms of collaborating with other GCSOs. -Some innovation collaboration framework existed in the past between VETA and SIDO in areas of cloth dying training and improved cooking stoves (ICS) making , an ILO-Swedish funded project, collaborated in short courses offering. -Currently there is no collaboration in place between VETA and MoCU, SIDO, TCDC or TaCRI. -Existing collaboration in other aspects includes between VETA and industries owners in curriculum development, and the Central Government or District Councils in conventional training and with some donor countries i.e. Germany, Japan and Britain, Sweden and others in areas of equipment and training provision.
Conversion	The ideas converted into practical products or services: 1, 2,3,4, 6, 7 and 8	No collaboration
Dissemination	The practical product or service disseminated to PCSos was number 2 only.	None

Innovation initiatives at SIDO

This study identified absence of formal structures for organising and managing innovation activities in SIDO. As a result, most creative ideas have not been converted into useful products or services (Table 5). It was revealed that, most innovation activities have been undertaken and managed informally making it difficult to track and monitor its value chain from ideas generation, conversion and dissemination. There was no innovation research unit or innovation needs assessment unit raising the possibility for the innovation activities undertaken to miss clients' needs. It was further revealed that, there was no innovation collaboration between SIDO and other GCSOs. Some collaboration between SIDO and VETA existed in the past on cloth dying and improved cooking stoves under donor support arrangements (Table 5).

Table 5: SIDO innovation initiatives assessment

Innovation stage/chain	Initiatives undertaken within SIDO innovation chain between 2007-2022	Collaboration among GCSOs rating and extent
Ideas generation	1. Designed ginger processing plant at Mwamba Myamba co-operative society in Same District, Kilimanjaro region. Required to design the machine to process 9.1 tons of ginger per day but managed to design one with capacity to process 2.7 tons/day. The processor has been working but with inability to isolate/sieve tiny sand and soil particles from the final products. The co-operative is working with SIDO for a more advanced processor in future. 2. Designed honey pressing and sieving machines, spices milling machines, sugar cane juice extractors, paddy crushers, soap extruders, maize shellers, semi-automatic cashew shelling machines, cashew steamers and other machines. No PCSos had benefited from the technologies. 3. Skin and hides products designs and training under SIDO Dodoma where leather centre has been established supported by the Netherlands Development organisation (SNV). No PCSo had benefited from it. 4. Facilitated *Muunganisho Ujasiriamali Vijijini* (MUVI project) where cassava farmers in Ukerewe and Mkuranga districts, sunflower oil processors in Babati district and other groups have benefited in areas of packaging skills training, bar codes use, and acquisition of quality certifications from quality assurance bureau. Some PCSos have benefited from the project. 5. Designed milk holding machines for maintaining required temperature during milk processing for Nronga women dairy co-operative society. The technology was implemented but did not function as expected (fault). 6. Established credit scheme package for SMEs including PCSos. Kalali women dairy co-operative was among the beneficiaries. At the time this study was conducted the credit scheme had ceased due to high credit default rate. 7. Operating incubator service particularly at SIDO Vingunguti area in Dar es Salaam where new ideas are nurtured and financially supported in form of credit charged at 2% interest rate. Defaulting of the credit offered has been a major challenge. The incubator service is missing in other regions. No PCSo was recorded to have benefited from the programme. 8. Operating technology development centres (TDCs) in seven regions of Arusha, Lindi, Kilimanjaro, Kigoma, Iringa, Mbeya and Shinyanga by supplying needed technologies and equipment like milling or pressing machines,etc in such centres at token i.e. low charges. 9. Operating premise renting programme to private technicians to undertake own designs and dissemination activities. The idea originates from its past programme of building and renting premises-currently not in operation. 10. Providing training on entrepreneurship, business management, packaging and labelling to SMEs, SMEs linkages with financial providers, women and youth training in enterprises management and development, etc. 11. Planning to establish the business and information centres including computer training to SMEs. Likewise, one District One Product programme was also established. 12. Established and trained industrial co-operatives and SMEs associations. 13. Training on Information Communication Technologies (ICTs) to SMEs. 14.Technology and product development including application of new technologies. Most technologies in place were observed to be obsolete and hence unable to design own new technologies. SIDO outsource some of its technologies for a fee.	-SIDO was rated as poor in collaboration with other GCSOs. -No innovation collaboration framework in place between SIDO and other GCSOs. -Some limited collaboration existed between SIDO and VETA in the past in areas of cloth dying and ICS making. -Existing collaboration with other partners include between SIDO and Canadian Executive Service organisation (CESO) in strengthening services offered to SMEs through volunteer advisers (Vas) and entrepreneurship training to SMEs. Others include between SIDO and CRDB bank in supporting and boosting agro-processing technologies in seven regions of Tanzania, outsourcing from TEMDO and CARMATEC for SIDO to design and fabricate products, with the central and local government in training and policy issues and with quality assurance agencies mainly TFDA and TBS. Other collaboration involves donor agencies including JICA, SIDA, UNIDO, ILO and others.
Conversion	The ideas converted into practical products or services were number 1-10	No collaboration
Dissemination	The physical products or services disseminated to PCSos: number 1,2, 5 and 6	None

Innovation initiatives at TaCRI

TaCRI has been specifically dealing with coffee research and hence most of its innovations are based on this line of expertise. Several creative ideas existed in TaCRI. Most of such ideas have been successfully turned into innovations i.e. improved coffee varieties (Table 6). Such coffee varieties were considered to be improved in terms of diseases and drought resistance, early maturity, high yields, better cupping quality, etc. Besides that, most of such varieties were disseminated to targeted end users i.e. coffee farmers, including PCSos. TaCRI has been undertaking extensive researches at its area of expertise

some of which were done in collaboration with farmers in their fields. This shows that, farmers' needs were considered in developing and disseminating such innovations.

Moreover, collaboration among staff within TaCRI was reported to be high as most innovation research activities were undertaken through teamwork. Nevertheless, this study revealed that, collaboration between TaCRI and other studied GCSOs were nonexistent. Even though, TaCRI has been working with co-operatives as among its key actors it has not established innovation collaboration with GCSOs. This implies that, its failure to collaborate with other GCSOs may have denied the co-operatives particularly the PCSos the necessary innovation benefits that may result from collaborative initiatives.

Table 6: TaCRI innovation initiatives assessment

Innovation stage/chain	Initiatives undertaken within TACRI innovation chain between 2007-2022	Collaboration among GCSOs rating and extent
Ideas generation	1. Developed about 23 improved coffee varieties. The coffee varieties include: ten Arabica hybrids named N 39-1, 2, 3, 4, 5, 6 and 7 and KP 423-1, 2 and 3 with same and or better beverage qualities than that of traditional varieties that were highly susceptible varieties N 39 and KP 423. It also developed six compact varieties named $CVT_1$3, CVT_1 5, CVT_2 1, CVT_2 10, CVT_2 11 and CVT_2 13 where on top of resistance to Coffee Berry Disease (CBD) and Leaf Rust Disease (LRD), its output is three to four times the traditional varieties and two to three times of new hybrids. 2. Developed improved robusta varieties resistant to Coffee Wilt Disease (CWD) a disease that has ravaged most of the robusta coffee farms in Kagera region. The varieties include Maruku1, Maruku 2, Bukoba1 and Muleba1. 3. Three other drought-resistant varieties have been developed and approved for official dissemination (in 2017/2018). 4. Outsourced coffee tissue culture technology under a signed memorandum of understanding from Crop Bioscience Solution, a private entity in Arusha region. 5. Outsourced coffee borer traps for controlling coffee borers. The traps have been supplied to some coffee farmers. 6. Designing and supply of coffee extension materials to farmers & other actors.	-TaCRI scored poor in terms of collaboration with other GCSOs. -Some innovation collaboration with other actors existed including the Central Government, District Councils, farmers, PCSos, private sector and donor agencies mainly the European Union (EU).
Conversion	The ideas converted into practical products or services were: 1, 2,3,4, 5,6 and 7	No collaboration
Dissemination	The practical products or services disseminated to PCSos were number 1, 2 and 3.	No collaboration

DISCUSSION

Innovation initiatives of studied GCSOs

Remarkable initiatives were recorded in most of the studied GCSOs at least during the first stage of the innovation chain i.e. creative ideas generation. At this stage numerous creative ideas were identified in such organisations. Nevertheless, during the second stage of the innovation chain i.e. ideas conversion suffered a notable decline in terms of ideas that were turned into new products or services. This shows that, most GCSOs were not able to turn most of the creative ideas into useful products or services. Bessant and Tidd (2011) show that, not all creative ideas become innovations rather they only become one if they are implemented. This implies that GCSOs failure to convert some creative ideas into innovations was likely to affect the subsequent innovation stage i.e. dissemination. In all studied GCSOs, some innovations were developed. Nevertheless, in most of them except TaCRI and to some extent MoCU, very few innovations were disseminated to PCSos.

Resources inadequacy, unwillingness to prioritise and or utilise available resources for innovation and lacking or inadequate innovation incentives were attributed to GCSOs failure to enable innovations creation and dissemination to PCSos. Others were the influence of external factors mainly inadequate government's resources commitment and uncoordinated innovation policy focus. Empirical studies affirmed that

few innovations are disseminating from GCSOs to PCSos in Tanzania (URT, 2006; ICA, 2013; DFID, 2014). The scenario is attributed to the precariously weak GCSOs innovation chains manifesting into weak and little creative ideas converted into innovations and culminating to few innovations dissemination to PCSos. The Innovation Value Chain Model (Hansen & Birkinshaw, 2007) emphasise that, for effective innovations dissemination to occur, the organisation's innovation chain must be well linked. This implies that, the innovation chains of most GCSOs were weak resulting into few innovations conversion and dissemination to PCSos. In contrast however, TaCRI's innovation chain analysis shows that it was good at sustaining its innovation chains and hence reasonable innovations i.e. twenty three improved coffee product varieties reached the farmers, PCSos inclusive between the years 2007 to 2022.

Extent of GCSOs collaboration in innovations design and dissemination to PCSos

The study revealed existence of a limited collaboration within most of the studied GCSOs in innovation chain aspects i.e. creative ideas generation, conversion to new products or services and dissemination to PCSos. To most GCSOs innovation undertakings were more of informal processes, undertaken based on personal initiatives rather than a product of teamwork or organisational initiatives. As a result most innovation activities were neither organised nor coordinated in clear organisational systems. In most GCSOs there was no department or unit specifically established for managing or coordinating innovation activities. This implies that innovation activities were not institutionalised in most GCSOs. As a result, the actual records or data bases of innovations developed and disseminated to PCSos and other clients were missing. Moreover, collaboration among studied GCSOs in innovation dissemination activities was nonexistent. This shows that, GCSOs have been working in isolation in such line of activities. Gibson *et al*. (2014) emphasised that, the ability to coordinate and maintain several useful collaborations is one among the key skills for organisation success. Furthermore, Graco *et al*., (2020) affirm that firms with more collaboration initiatives are likely to succeed in their activities and or projects.

Along the same lines, it was revealed that, some study participants considered other GCSOs as competitors as opposed to working mates. One KI from MoCU expressed concern over TCDC in that:

> *TCDC seems to be our competitor rather than working partner as they are even conducting short courses just like what our institution has been doing* (KI 2, MoCU, Feb. 2018).

Similar concerns were recorded in SIDO and VETA. This was especially noted in some aspects pertaining to training that were offered by both GCSOs especially entrepreneurship, tie and dye training e.g. batik making, mechanical trade activities e.g. welding and joinery, machines and motor designs, etc. This implies that, the predisposition for some study participants or GCSOs to consider one another as rivals may deny the PCSos the necessary benefits that could result from collaborative initiatives.This is because since all GCSOs are working to serve the same clients and certainly aiming at achieving similar ends of improving community well being, innovation collaboration could enable them combine the necessary scarce resources and expertise in a more beneficial and mutual relations.

Innovations designed and disseminated in collaboration among studied GCSOs

This study revealed that, most of the studied GCSOs were not collaborating in innovation activities despite being aware of the necessity for innovations collaboration. Studies have indicated that, the interaction with stakeholders from external environments is fundamental element in the innovation process (Kaats & Opheij, 2014; Tidd & Bessant, 2015; Cricelli *et al*., 2021). This implies that, organisational collaboration is fundamental for successful innovation engagements to occur. However, it is difficult to be accomplished and maintained as it depends on organisational characteristics and the creation of trust among participating actors (Nascimento & Labiak, 2011; Boddy *et al.*, 2020). This implies that, realising the necessity for innovation collaboration as is the case with the studied GCSOs is one aspect but moving further steps ahead to establish and maintain one is the most crucial steps that requires partnering organisations' commitment and good will. This shows that, the studied GCSOs have not yet moved into such necessary steps. Kaats and Opheij (2014) stated that, one basic factor for collaborating is, you believe that joint efforts achieve the desired goals that neither of the parties could obtain on their own. This is to say, there is possibility that the studied GCSOs do not currently feel the necessity to work jointly in innovation activities as their collaboration stakes might not be clear. The Negotiated Order Theory (Strauss, 1978) emphasise that, collaboration among organisations is fostered when the stakeholders are aware on the need to solve a shared problem that calls for a collective action. This implies that, collaborative innovations design and dissemination may currently not be one among the shared problems of most GCSOs. This was evidenced by the fact that, most GCSOs lacked own innovation units or departments to organise and spearhead innovation activities making it difficult to organise inter-organisational collaborations.

Trends and generalisations

Efficient innovation collaboration is the crucial aspect for ensuring organisations growth and sustenance. This study revealed limited traces of inter-organisational innovation collaborations in few of the studied GCSOs. This implies that innovation activities collaboration was not a priority in most of the studied organisations. Gonzalez-Benito *et al.* (2016) and Mowery *et al.,* (1996) emphasised that innovation collaboration promote the exchange and transfer of resources and knowledge, which can provide organisations with a competitive advantage. Despite this necessity and other collaborative benefits as accentuated in this paper, to most GCSOs innovation collaboration activities and prioritisation of the resources for the same were nonexistent.

Study limitations

The findings of this study have to be seen in light of some limitations. This study was conducted at a time when some key GCSOs i.e. the Tanzania Co-operative Development Commission (TCDC) and Moshi Co-operative University (MoCU) were still readjusting themselves from major re-organisation. This is due to the fact that TCDC was established in 2013 following the transformation of the former Co-operative Department in Tanzania and MoCU was established in 2014 following the upgrading of the former Moshi University College of Co-operative and Business Studies (MUCCoBS) itself having been transformed from the Moshi Co-operative College in 2004. Thus, some organisational

transformation events and or changes that may in one way or another influenced organisations' innovation collaboration efforts and or resources commitment for the same are likely to have continued to happen beyond the study period and coverage. The researcher therefore may not claim to have seen, cover and present all of the facts required for this study at its entirety through to their conclusion. Similarly, the findings of this study are to a large extent related to GCSOs collaboration in designing and dissemination of innovations to PCSos. The study covered only GCSOs while there are other member-based and private organisations dealing with co-operatives and possibly doing more or less similar activities as the GCSOs.

CONCLUSION

This study concludes that little initiatives regarding innovation ideas generation, conversion and dissemination to PCSos were deliberately taken by the studied GCSOs. This resulted from weak and disjointed nature of the innovation value chains of the studied GCSOs. This demonstrate that, not much has been done in ideas conversion to new products or services and on innovations dissemination to PCSos. This in turn denies the PCSos numerous innovations that could come from GCSOs. The Innovation Value Chain (IVC) model accentuates that, for effective innovations dissemination to take place the organisation innovation chains must be well linked. Moreover, limited innovation collaboration was revealed within most GCSOs. As such, the innovation activities were not institutionalised i.e. not organised and coordinated under clear organisational system, making it a neglected discipline. Furthermore, limited traces of inter-organisational innovation collaborations were identified in studied GCSOs. Not even the informal organisational collaboration in innovations design and dissemination activities was established. The Negotiated Order Theory (NoT) highlights on the necessity for stakeholders to recognise the power of collaboration in achieving shared understanding of the problem and formulation of the collective solutions. Such collaboration power was however missing in the studied GCSOs. This shows that, the innovation collaboration benefits such as sharing of resources, risks, innovation solutions, etc that could hasten innovations design among GCSOs and its dissemination to PCSos were lacking. It is also concluded that the studied organisations were not in a position to undertake joint innovation designs and dissemination to PCSos.

RECOMMENDATIONS

This study recommends that, for substantial innovations to be developed and disseminated to PCSOs, the GCSOs should genuinely work to ensure innovation value chains strengths. The chains can be strengthened by ensuring sufficient allocation and prioritisation of resources for innovation activities. This should go hand in hand with ensuring innovation activities institutionalisation including establishing a unit or department responsible for innovation aspects. Such units or departments should be manned with qualified personnel that can conduct innovation researches, interpret research findings and translate the findings into innovation outputs and ultimately disseminating them to PCSos. To achieve this, the GCSOs should also provide the necessary resources to enable its operations.

Furthermore, the study recommends that, more efforts should be taken by the Central Government, the GCSOs and other co-operative stakeholders such as the Tanzania Federation of Co-operatives (TFC), the

International Co-operative Alliance (ICA), and others to encourage innovation activities and collaboration within the studied GCSOs. This can be done by facilitating establishing special innovation programmes or projects that includes interdisciplinary teams of experienced and non-experienced personnel. This will encourage sharing and inculcating of innovation spirit among staff and other key actors. The innovation collaboration success of such teams is likely to result into more innovation activities in the innovation value chain that will ultimately result into innovations dissemination to PCSos.

Similarly, the GCSOs should work to establish and maintain innovation collaboration among them. This is because, given their limited innovation chain management ability and the contemporary global innovations competition demands, their chances of excelling in the innovation field while working in isolation is likely to be minimal. Meanwhile, the emergence of COVID-19 pandemic in 2019 has reminded us all on the necessity for collaboration among individuals, organisations, nations and continents for a common pursuit. The pandemic's devastating socio-economic effects such as increased poverty and inequalities to nations of the world and especially the Third World Countries makes the need for organisations innovation collaboration more pertinent than before. This is because the pandemic's negative effect have by any means made poor communities more poorer and weak organisations and or individuals weaker than before. This in turn has made organisations (particularly GCSOs) innovations design and dissemination collaboration more relevant and timely.

Areas for further research

First, the current study was limited to GCSOs only despite the fact that there are other member-based and private organisations that support co-operatives in Tanzania. A more inclusive study covering and comparing other co-operative supporting organisations is advised in future to establish their innovation collaborative efforts for dissemination of innovations to PCSos.

Secondly, the study adopted a multiple holistic case study approach in the sense that many cases but a single unit of analysis i.e. GCSOs was used unlike multiple embedded approach that encompass many cases and many units of analysis. The use of multiple holistic case study approach necessitated conducting of confirmation visits to some PCSos to trace the innovations that were likely to be collaboratively disseminated from GCSOs to PCSos since PCSos were not unit of analysis for this study. A more inclusive study combining GCSOs and PCSos and or other co-operative supporting organisations in form of multiple cases and multiple units of analysis is recommended in future. Such study is likely to enrich and compliment the current study by informing more diversely on the organisation's collaboration in designing and disseminating innovations to primary co-operative societies.

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