Demystifying the Sixth Co-operative Principle: Interplay between Framework and Digital Era on Growth in Deposit Taking Co-operatives in Kenya

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Abstract
Co-operatives are indispensable in economic development worldwide. The World Bank, International Co-operative Alliance and International Labor Organization acknowledge co-operatives’ role in fighting poverty and promoting equity. The guidelines through which co-operatives put their ethics, values and beliefs into practice are embodied in co-operative principles. However, although the sixth principle emphasizes co-operation among co-operatives at local, national, regional and international levels, it is yet to be practiced adequately due to limited understanding. This paper seeks to demystify the sixth co-operative principle by examining the effect of the interplay between the co-operative framework and digital era on the growth of Deposit Taking co-operatives in Kenya. It is anchored on co-operative socialistic school of thought by Marxist Lerin. The theory states that co-operatives are social enterprises aimed at transforming societies by removing the ills of capitalism through co-operative ethics of self-help and solidarity. Quantitative secondary data from SACCOs Regulatory Authority (SASRA) data base in 175 Deposit Taking co-operatives using cross-sectional research design and census sampling technique is used. Data were analyzed with the aid of binary logistic regression. The findings indicate that the interplay between co-operative framework and digital era accelerates co-operation among co-operatives (p values all <0.05). In addition, it improves service to members and increases co-operative movement’s growth. The study concludes that digital era indicators that lead to increase in co-operation among co-operatives, hence enhancing service to members and co-operative’s movement growth, were computer hardware, software and skills. Other co-operative framework indicators identified were co-operative identity, structure, policy and environment. The study recommends to co-operative managers and board to embrace co-operative framework and digital era to accelerate co-operation among co-operatives and provide better services to member leading to co-operative movement’s growth.

Keywords: Demystifying Sixth Co-operative Principle.

INTRODUCTION
The World Co-operative Monitor (WCM, 2021) defines co-operative movement as 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. It is estimated that there are about three million co-operatives across the world offering employment to about 12% of the total global population. Kenya was ranked number one in Africa (WCM, 2021). The Kenya Vision 2030 acknowledges the important position that co-operatives play in economic development (SASRA 2015; 2021). It should be noted that whereas co-operatives are vehicles for economic development, a framework and digital environment if provided is likely to expedite provision of services to the members
(Aferdita, 2015) and increase co-operation among co-operatives. Members are key in co-operatives, they act as patrons, decision makers and are also customers. There are various forms of co-operatives and Savings and Credit Co-operative Societies (SACCOs) is one of them (Chepkirui et al., 2021; Beyene, 2018). The SACCOs popularly termed as Credit Unions were first founded in Germany by Friedrich Wilhelm Raiffeisen and Hermann Schulze Delitzsch between 1852 and 1864. These financial institutions act as power hubs for financial credit to members.

Co-operatives are principle based, the sixth co-operative principle states that co-operatives should co-operate at local, regional, national and international level so that they can serve her clients who are members well and strengthened co-operative movement’s growth (ICA, 2021). Many co-operatives are not implementing this principle adequately hence denying members and the co-operative movement the opportunity to benefit from benefits that arises from it. This is because of limited understanding about the principle. The aim of this study was to contribute to the debate by examining the role of the interplay between co-operative framework and information technology on spearheading co-operation among co-operatives and enhancing the benefits to members and co-operative growth at large.

The co-operative framework and digital era was gauged by the co-operative identity, structure environment and information technology. The three cornerstones of the co-operative identity lies within the definition, values and ethical issues and principles. The definition of co-operatives indicates that they are autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically control enterprise. Implicitly, the definition expresses the need for co-operation among the co-operatives (Lotto, 2018). Furthermore, it indicates that whereas co-operatives are autonomous associations of people, common needs drives them (Msuya and Mataba, 2021). For over four decades, many co-operatives have been formed but quite a number have collapsed due to a myriad of challenges (Msuya and Mataba, 2021). One of the factors likely to be the cause of the challenges could be limited understanding of the co-operative character in form of a framework. The other factor within co-operative identity is values and ethical values. According to (ICA, 2021), co-operative values are self-help, self-responsibility, democracy, equality, equity, and solidarity and in the tradition of their founders, cooperative members believe in the ethical values of honesty, openness, social responsibility and caring for others. ICA (2018) postulates that when members follow these values, they will obviously co-operate with other co-operatives thereby promoting co-operative values of self-help and self-responsibility. Lastly co-operatives follows principles of open and voluntary membership, member democratic control, economic participation, autonomy and independence and education, training and information. Other principles are co-operation among co-operatives and concern for the community. These principles are mainly the ones that were launched in 1995. There are structures in co-operatives with the apex level being the International Co-operative Alliance (ICA). Co-operatives have also structures at local level being primary co-operatives followed by the secondary co-operatives or unions and lastly apex co-operatives. The political environment, economic, social and threats both internal and external affects co-operation among co-operatives. An economic environment that is too competitive may deter co-operatives from co-operating with each other, on the same note in the wake of economic constrains if drivers of co-operatives failed to apply co-operative values, co-operation among co-operatives
might be a dream that cannot be realized. Politics favorable to the growth of co-operatives may spur its growth and vice versa. Threats may be in form of unfavorable competitions from within and outside likely to interfere with co-operatives.

Legislature is an instrument in the co-operative that acts as a tool for putting co-operatives in the right space. Legislation is important because without it, excesses made by employees, board of directors and members will be difficult to check. Globally the recommendation number 193 of 2002 which replaced 127 recognizes the important role co-operatives was playing, it therefore calls for the worldwide setting of policies that creates an enabling environment for co-operatives to flourish. In Kenya the Co-operative Act of 2012 and chapter 490 are the points of references used in co-operatives. The co-operative Act is used to settle arbitration whenever differences arises. Implicit in these also are the co-operative bye-laws written by members that are similar to articles of association in companies. Legislation is necessary because it gives co-operatives protection from political and economic aggression.

Co-operative business models include the financial institutions such as the Co-operative Bank and the Credit Unions (De Haan, 2017). Others are non-financial institutions service co-operatives like the consumer co-operatives, the housing co-operatives, producer, marketing and manufacturing co-operatives. There are also transport co-operatives, worker and art and craft co-operatives. The Co-operative Bank is the biggest financial institution of its kind in Kenya, its registered under both co-operative and bank Act. It offers banking services to all forms of co-operatives and individuals such as school fees loans, health loans, development loans and emergency loans among others (Chepkirui et al., 2021). SACCOs are other financial institutions that give an estimated over 475 billion loans to members and have 431 billion members’ deposits and over 628 billion assets (SASRA, 2021). The Co-operative Insurance is the only one in Africa that provides insurance services. Transport service co-operatives have streamlined the transport sector by bringing sanity on the roads. At the moment, it’s very unlikely for a public service vehicle to continue its operations without registering with a SACCOs.

The interaction between co-operative framework in terms of co-operative identity, structure and environment ignites the likelihood of the co-operation among the co-operatives and moreover, member’s service delivery and DT SACCOs’ growth. With an interplay of digital era, a study on the effect on co-operation among co-operatives was conducted. The digital era is examined in terms of information technology with the following indicators: hardware, software and knowledge skills. Digital information enhances communication between co-operatives at local, regional, national and international levels (Aferdita, 2015; Mangana, 2015). This will happen through creation of websites indicating what the organization is doing, products, shares raised and member’s savings. Co-operatives may benchmark from each other boosting the development of trade and co-operatives in general. In terms of communication, internet makes it faster through emails, mobile calls, WhatsApp and zoom meetings.

This study was anchored on socialistic co-operative school thought by Marxist Lerin. The theory views co-operatives as forms of social enterprises aimed at removing the ills of capitalism. Socialistic theory promotes ideas calculated to safeguard and realize the aspirations and interest of the working group. In addition, co-operatives according to the theory are economic and social organization of the working people and that co-operatives are important in advancing the social progress. Co-operatives through the social
ideals are guided by the values of self-help, self-responsibility, democracy, equity and equality and in the tradition of their father’s ethic such as openness, caring for others, solidarity and honesty are important facets of the co-operation among the co-operatives (Mirie, 2014). The values transform the ideas into practices of co-operatives which are key in promoting the sixth co-operatives principle. The theory is relevant to the study because co-operation among the co-operatives is in essence a social factor. The socialistic idea is not recent, right from the Rochdale Pioneers of 1844, co-operatives are seen co-operating to form the International Co-operative Alliance (ICA) founded in 1895. The co-operative principles which are in force at the moment were borrowed from the Rockdale Pioneers of 1844. This structure has an effect on co-operation among co-operatives as tested in this study on the DT SACCOs.

Although the sixth co-operative principle states that co-operatives ought to co-operate at local, regional, national and international level so as to serve members effectively and strengthened co-operative movement, many co-operatives are yet to practice fully this principle due to limited understanding. This is likely to inhibit the benefits that could accrue to the members from this principle. Practicing of this principle is paramount because it will stop the competition among the co-operatives and bring sanity in the co-operative movement. Moreover, it will support situations whereby instead of co-operatives competing, they will come together and work towards meeting member needs. Co-operatives will benchmark from each other, improve their weaknesses and seek to excel as a co-operative movement but not as one co-operative. Benchmarking is one of the oldest teaching method that appeals to learners most because psychologists says that seeing impacts on 88% of learning compared to hearing. One of the most likely reasons as to why co-operatives are not practicing this principle well could be because of lack of clear understanding of the approaches.

Several studies have been done on co-operative movement. For example, Msuya and Mataba (2021) conducted a study on individuals determinants of participation in Savings and Credit Co-operative Societies in Mwanza and Tabora Rural Areas, Tanzania. On the other hand, Metto and Kazungu (2021) have examined the contribution of social solidarity economy on poverty eradication with special reference to Uasin-Gishu County. Onduko et al. (2021) looked at profiling of housing on affordability in Nairobi. However there has been scarcity of clear information on an approach to operationalize the sixth co-operative principle. The aim of this study was to explicitly examine the approach that may be used to improve co-operation among co-operatives hence bringing an understanding on the sixth co-operative principle.

The conceptual framework below is an operational approach derived by the author from literature review which illustrates how the variables were modelled to interact and influence each other. The idea behind the study is that when co-operative practices such as co-operative identity are combined with the structure and a supportive environment, then made to interact with the digital era, it will most likely affect positively the co-operation among the co-operatives. This will improve service delivery to members and increase DT SACCOs growth. The concept borrows from the socialistic enterprise theory that views co-operative enterprises as social institutions meant to transform societies from being capitalistic to mutual self-help institutions.
METHODOLOGY
The study was carried out in Kenya on 175 Deposit Taking (DT) SACCOs that has a membership of over five million people. These SACCOs comprised of 49 farmers based, 43 teachers based, 37 government based, 24 privately based and 22 community-based SACCOs. The target population was DT SACCOs. The study used cross-sectional research design. The design was appropriate because it enabled the study to do a snapshot of the published supervisory report on DT SACCOs at a point at a time. The design was found to be relatively cheap and less time consuming as opposed to other designs. It was also found that it allowed collection of a big pool of data from various subjects and comparing. Again it can be used to prove or disapprove a theory. The sampling technique used was census. Given that there are only 175 SACCOs, it was found fit to examine all of them so as to get an all rounded report and increase confidence on the data since it’s most accurate. Census also was used because it was possible to capture a wide spectrum and has a wider coverage.

The data collection tool was documentary analysis. SACCOs Society Regulatory Authority (SASRA) documents were reviewed. Documentary review was done because it limits errors and again the documents used were SASRA reports. Secondary data was collected because it is easy to access and has low-cost implications, hence economical. Furthermore, it saves time, large amount of data can be collected, and anyone could collect this type of data. Secondary data facilitates a basis for comparison. The data collection instruments were pretested for reliability through test
retest of the instruments. For the validity, the researcher calculated Cronbach’s coefficient that was 74% implying that it was valid.

The data was analyzed using binary logistic regression analysis because the independent variables were categorical data, that’s co-operative identity, structure and environment while the dependent variable was Deposit Taking (DT) SACCOs gauged through co-operation among co-operatives hence service to the members and growth. There were some tests that were carried out before data were analyzed such as goodness of fit by using deviance goodness of fit, Pearson’s goodness of fit and Hosmer and Lemeshow test that was found to be not too smaller than the chosen level of significance implying that the model used was a good fit. Multi-colleniarity of the variables was also tested by checking at the Variance Inflation Factor- (VIF) and tolerance value that was found to be higher than 0.1. The VIF was less than 5 meaning it was okay. The formula that was used was

\[ C \pi(\bar{x}) = \log \left[ \frac{\pi(\bar{x})}{1 - \pi(\bar{x})} \right] = \alpha + \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_p x_p \ldots \]

Therefore: \[ \log \left[ \frac{\pi(\bar{x})}{1 - \pi(\bar{x})} \right] = G \]

Where C was co-operation among co-operatives, the co-operative framework was measured using the following independent variables. Error was shown by e, \( \beta_0 \) was the constant term coefficient while \( \alpha \) was a model intercept and \( \beta_1 - \beta_p \) indicated coefficient of regression. The null hypothesis that was being tested was:

\[ H_0: \text{There is no significant relationship on the interplay between co-operative framework and digital era on co-operation among co-operatives of Deposit Taking SACCOs, member service and DT SACCOs’.} \]

\[ X_1 = \text{Co-operative identity} \]
\[ X_2 = \text{Co-operative structure} \]
\[ X_3 = \text{Co-operative environment} \]
\[ X_4 = \text{Digital era} \]

RESULTS AND DISCUSSION

The main aim of this study was to test null hypothesis that there is no significant relationship on the interplay between co-operative framework and digital era on co-operation among co-operatives and moreover member service and growth of DT SACCOs. To achieve this objective data was collected from DT SACCOs as shown below. The findings on the Table 1 indicates that the SACCOs that were used were farmer based (28%), teachers (24.5%), government SACCOs (21%), private SACCOs (14%) and community SACCOs (12.5%). The data indicates that most DT SACCOs were farmers based owned followed by teachers’ based. The findings also means that there were few community based DT SACCOs compared to other SACCOs.

<table>
<thead>
<tr>
<th>S/N</th>
<th>SACCOs</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Farmers SACCOs</td>
<td>49</td>
<td>28</td>
</tr>
<tr>
<td>2</td>
<td>Teachers SACCOs</td>
<td>43</td>
<td>24.5</td>
</tr>
<tr>
<td>3</td>
<td>Government SACCOs</td>
<td>37</td>
<td>21</td>
</tr>
<tr>
<td>4</td>
<td>Private SACCOs</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>Community SACCOs</td>
<td>22</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>175</td>
<td>100</td>
</tr>
</tbody>
</table>

Source- SASRA- 2020 Data base Report.

Table 2 indicates that in 2018, there were 174 SACCOs compared with 2019 and 2020 that was 172 and 175 respectively. This implies that there has been a very smaller change on the number of co-operatives between 2018 and 2020. About the total assets, they were billions 495 in 2018, 556.71n 2019 and 626.68 in 2020. This is an indication of growth despite the wake of Covid 19 pandemic. These also applies to loans and

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deposits which grow between 2018 and 2019 as indicated by loans of 374.28 in 2018 and 341.91 compared to 430.11 and 537 in 2018 and 537 in 2020. This indicates that the interface between the co-operative frameworks and digital era impacted on the SACCOs growth as shown by the increased on loans and assets (Table 2).

Table 2: The performance of the SACCOs

<table>
<thead>
<tr>
<th>Variable</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of SACCOs</td>
<td>174</td>
<td>172</td>
<td>175</td>
</tr>
<tr>
<td>Total Assets</td>
<td>495</td>
<td>556.71</td>
<td>626.68</td>
</tr>
<tr>
<td>Loans</td>
<td>374.28</td>
<td>419.55</td>
<td>473.74</td>
</tr>
<tr>
<td>Deposits</td>
<td>341.91</td>
<td>380.44</td>
<td>430.11</td>
</tr>
<tr>
<td>Branches</td>
<td>504</td>
<td>526</td>
<td>537</td>
</tr>
</tbody>
</table>

Source: CBK -Monthly Economic Indicators

Assets and loans are in billion shillings

Table 3 shows that membership in DT SACCOs grew from 4,191,158 to 5,470,192 between 2018 and 2019. At the same time there were dormant membership that grew from 676,052 in 2018 to 1,372,575 in 2020. On the other hand, active membership grew from 3,517,106 to 4,097,617. This further confirms that co-operation among co-operatives at various levels affected membership growth at various levels. Linda et al (2017) and Prathap, et al (2018) stated that mediating effect of corporate governance affect performance of an organization.

To further confirm whether the co-operative identity, co-operative structure, environment and digital era affected DT SACCOs in Terms of co-operation among the co-operatives. The independent variables where run on the Statistical Packages for Social Sciences (SPSS) using binary logistic model and the findings are shown below. The findings indicates that co-operative identity had more effect on increasing co-operation among co-operatives. The p values was (0.008), this was almost similar with digital era that had a p value of 0.005. This indicates the co-operative identity in terms of values, ethical values and principles were influencing co-operation among co-operatives adding voice to what Widuto (2017) highlighted by stated that the European Parliamentary Union called for support of the transformation of societies to social solidarity economies. This concurs with International Co-operative Alliance, ICA (2021) that strongly advocate to co-operatives to practice the co-operative character so as to improve co-operatives performance. This furthermore means that when the co-operatives goes back to its co-operative character of caring for each other, social solidarity, self- help, self-responsibility; they will obviously do co-operation among the co-operatives. The co-operative structure were found to expedite co-operation among co-operation as indicated by 0.016. The structure trickle down from International Co-operative Alliance all the way to SASRA, this was again compared with the environment p value that was 0.038 and the constant term that was 0.000.

The implications of the findings is that when all these factors are combined together that’s digital era, and co-operative framework are combine, they will impact on co-operation among the co-operatives as indicated by the p values of 0.000 for all the variables confirming what (WCM, 2021) suggested about the digitalization of activities in co-operatives fostering co-operatives growth. Exponential B was 2.0070 which means that these variables were two times affecting co-operation among the co-operatives.
Table 3. Members in SACCOs

<table>
<thead>
<tr>
<th>Status</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>3517106</td>
<td>3744844</td>
<td>4097617</td>
</tr>
<tr>
<td>Dormant</td>
<td>676052</td>
<td>764472</td>
<td>1372575</td>
</tr>
<tr>
<td>Total</td>
<td>4191158</td>
<td>4509316</td>
<td>5470192</td>
</tr>
</tbody>
</table>

All the other variables co-operative identity, structure, environment and digital era were all over one meaning that they affected co-operation among the co-operatives by one time. This concurs with the International Labour Organization, ILO (2019) and the European Parliamentary Committee statement on the role of co-operatives, in the economy (Widuto, 2017). Nagelkerke $R^2$ was 0.657, meaning that the variables were influencing the output by about 66% while the Cox and Snell was 0.517, meaning the variables had an effect on the output. Hosmer and Lemeshow test was 0.586 that was higher than the set level of significance implying that it was a good fit for the study. Based on this results, the null hypothesis that there is no significant relationship between co-operative framework and digital era on co-operation among co-operatives of DT SACCOs hence SACCO’s growth was rejected and the alternative hypothesis accepted.

Table 5: Results of the Logistic Regression Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Wald</th>
<th>df</th>
<th>P</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X₁-Co-operative identity</td>
<td>0.0050</td>
<td>10.936</td>
<td>4</td>
<td>0.008</td>
<td>1.0050</td>
</tr>
<tr>
<td>X₂-Co-operative structure</td>
<td>0.0025</td>
<td>7.818</td>
<td>4</td>
<td>0.016</td>
<td>1.0025</td>
</tr>
<tr>
<td>X₃-Co-operative environment</td>
<td>0.0015</td>
<td>7.554</td>
<td>4</td>
<td>0.038</td>
<td>1.0035</td>
</tr>
<tr>
<td>X₄-Digital era</td>
<td>-0.0010</td>
<td>9.143</td>
<td>4</td>
<td>0.005</td>
<td>1.0080</td>
</tr>
<tr>
<td>X₅ Constant Co-oper among co-oper.</td>
<td>0.0070</td>
<td>10.993</td>
<td>4</td>
<td>0.000</td>
<td>2.0070</td>
</tr>
</tbody>
</table>

Key= Significant of variables was at $p<0.05$, Nagelkerke $R^2=0.657$, Cox and Snell=0.517, Hosmer and Lemeshow test (Chi-square=181.3, sign=0.586)

CONCLUSION AND RECOMMENDATIONS
The purpose of this study was to examine the effect of interplay between co-operative framework and digital era on the co-operation among co-operatives of the DT SACCOs’ growth. The study found that the interplay between co-operative framework and digital era positively affected co-operatives among co-operatives, member service delivery and growth. It was concluded that co-operatives should revert back to the co-operative character by holding onto co-operative identity, structure and embracing the opportunities within the digital era. Digital use was widely used in co-operatives that were equally doing well. The co-operative identity values and ethics have more about co-operation among the co-operatives in form of self-help, self-responsibility, social solidarity and caring for each other. The environment also have to be supportive through legislation. The government’s laws have to be effective on affecting co-operative as for example the Kenya Co-operative Act of 2012 and Chapter 490. There is need to revise and come with policies that impact on co-operatives. The environment is further expected to be not bolstering too much competition. Competition at some level is
good but not to an extent where co-operatives are not benchmarking on each other. Competition for customers for national co-operatives was underlined to be one of the challenges hindering co-operation among co-operatives. It was noted that there was a necessity for most co-operatives to practiced co-operative principles adequately so as to benefit members. It was recommended that the co-operative identity, structure, environment and digital era ought to be considered to improve co-operation among co-operatives in co-operatives and furthermore growth. In order to expedite more understanding to members, the study recommends provision of education, training and information to co-operative board, employees and members on co-operative character, co-operative policies and legislations should also be reviewed.

REFERENCES
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