The Influence of Cameroon Cooperative Credit Union League (CamCCUL)’s Activities on Innovation and Learning in Affiliated Credit Unions

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Abstract
Organisations are more conscious about future performance than past performance nowadays. It is on this note that this paper seeks to determine the influence of Cameroon Cooperative Credit Union League (CamCCUL)’s activities on innovation and learning in affiliated Credit Unions. The study adopted a causal research design. The study relied on the Balanced Scorecard Framework of Norton and Kaplan (1996) on which performance measurement is tilted away from solely financial perspective to include others with one being innovation and learning. The Ordinary Least Square (OLS) Technique, particularly the multiple regression given that it assumes linearity. The data was processed using STATA version 14 and tested for significance using t-statistics at 10, five and one levels of significance. Stationarity was tested using unit root test and further regression analysis revealed that adjusted correlation coefficient is represented by Adjusted R-square which is 0.9589 (95.89 percent). This value implies that the combined efforts of training/education, auditing, publicity/promotion, supervision and loans had a 95.89 percent effect on the number of employees trained in affiliated Credit Unions in Cameroon. Post-test like Durbin Watson was equally conducted and the results were reliable. The researchers recommended that comprehensive performance reports be made compulsory to present a comprehensive view of the Credit Unions’ performance.

Keywords: CamCCUL, innovation/learning and affiliated Credit Unions.
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Introduction
One cannot ignore or fail to notice the predominance of Credit Union institutions in Cameroon. Their predominance is highly related to the role that they play in the socio economic development of such economics though Karagu, Gweyi and Ndwiga (2013) attributes their growth contributions only to rural lending and high levels of rural development. This justifies why Asante (2015) points to the enormous importance of such institutions in mobilizing savings and making credit possible and accessible to its members. Though created for the benefit of its members only, their membership is hardly restricted and the requirements to belong to one are relatively loose, making it a common “house to belong” by most citizens in developing countries like that of Cameroon. Akume and Annicet (2017) has attributed the significant reduction in poverty in Cameroon to the existence and functioning of these Credit Unions.

In the past, many have perceived Credit Unions as those institutions that are meant for those members of the society that belong to the low income class, that earned her the name “bank for the poor”. Nembhard (2013) and Mofor (2010) has recognized the role of Credit Unions as being the most vital institution amongst other community-based businesses. The World Bank Report (2015) attributes 78% of the Cameroonian population to those who belong to the low and middle income class, this justifies the significant role of Micro Finance Institutions to the community development. According to Buwah, Akpan and Chofor (2019a), the Credit Unions are perfect at filling the gap that the financial institutions have left unfilled. To emphasize this point, Gaetan (2012) recognises the fact that Credit Unions reduce the poverty levels significantly though they lack financial power.

The initiative of establishing member-ownership establishments in the name of Credit Unions might have started in Rockdale, England in 1844 and with the wave of globalization, has spread far and fast that Cameroon witnessed it in the 1960s through the efforts of Rev. Anthony Jansen in Njinikom, Boyo Division - North West Province of Cameroon. Due to the impact globalization on social and economic landscape, there was need to put individual, private and government efforts to ensure the sustainability of Credit Unions. It is in line with this that a supervisory body was registered in September 4, 1968 known as West Cameroon Cooperative Union League (WCCUL). The mission of this body was to ensure sustainability, economic and social development of Credit Unions in West Cameroon. In March 1973, the annual general meeting was held and a resolution changed the name to Cameroon Cooperative Credit Union League (CamCCUL), (CamCCUL, 2014).

CamCCUL being a supervisory body that functions under the auspices of the Ministry of Finance, their
activities were not limited to monitoring but also to be more proactive in nature. They are intended to ensure that the Credit Unions do not only get noticed at the point of their collapse, but that their failure potentials be limited or prevented (Buwah & Chofor, 2019b). Among the countable activities/services provided by CamCCUL to its affiliated Credit Unions some significant ones as revealed by the factor analysis of Buwah (2020), are related to; supervision, publicity/promotion, loan provision, education/training and auditing. The Leagues seek to upgrade the skills of the workers within the Credit Unions network with the belief that “manpower is the most valuable resource” in every business, and especially in those that operate within the service sector. Though all these services are seen as mutually exclusive activities, in practice, they are interdependent. It is obvious to think that auditing is highly associated with the nature of supervision that has been carried out over the years. It is in this regard that Cameroon Cooperative Credit Union League is seen as providing a basket of services that she provides to its affiliated Credit Unions.

The membership of the network stood at about 41,197 in 1980, during this period the employees that were sent on training were approximately 38 in number. There was a corresponding drop of membership of 27 as reflected by the number of closed accounts registered. Three years after, the membership rose to 58,804 with about double the number of employees sent for training. Fortunately there was a drop in the number of members who closed their accounts and exit the Credit Unions, (CamCCUL Archive, 2016). As the years went by, the number of members sent for training has been increasing but this however has not yield the same proportionate increase in the number of members and savings/shares which have been used in the past as measures of performance in Credit Unions given that these are key performance indicators for Credit Unions, (Buwah & Chofor, 2019b).

The management of CamCCUL has been improving on all these services provided to the affiliated Credit Unions. There has been dramatic increase in the amount offered as, the reserves kept for various Credit Unions, the frequency of supervision has been increasing, couple with improvement in the scope and quality of publicity and promotion strategies. The techniques of training and education has been varied including seminars, conferences, foreign exchange studies and training, coaching, mentoring and job rotation. Despite all these numerous efforts, there is been a huge variation in the endeavours and the measures of performance. It is in line with this that the paper seeks to examine the extent to which Cameroon Cooperative Credit Union League affects the knowledge acquisition in affiliated Credit Unions.

Methods
The study adopted a causal research design. The exploratory approach in particular is used to examine the effect of CamCCUL’s activities on the dimension of performance of the affiliated Credit Unions. A better knowledge of the performance of affiliated Credit Union is better explained by the Balanced Scorecard Framework by Norton and Kaplan. The Balanced Scorecard is a framework used for performance measurement. The framework is a result of the research endeavours of Robert Kaplan and David Norton who added non-financial performance measures on the traditional financial performance measures to give an organisation a “balanced” perspective of her absolute performance.

![Image: The balanced scorecard framework](source: Adapted from R. S. Kaplan and D. P. Norton, (1996))
The framework suggests that for an organisation to objectively assess its performance, it should view its operations from four perspectives and to develop metrics which will be used to collect data and analyse in relation to each of these perspectives. This paper however examines just one of the perspectives of measuring organisational performance.

The Learning and Innovation perspective unlike the other perspectives captures aspects that can result in knowledge acquisition and innovative ability. It usually centres on employee training and organisational learning meant for both at the individual and the corporate levels. In every organisation, “knowledge workers” are the key to its success and such knowledge must be continuously acquired, maintained and developed. Kaplan and Norton expanded the scope of learning to emphasise that “learning” is not limited to “training” but includes other value adding exercises like mentorship (where trainees are assigned under the guidance of a senior experienced worker) and tutorship (where trainees are assigned to senior workers who constantly provide practical exercises to ascertain the level of knowledge acquired in the training) within the organisation and not leaving out networking in professional associations.

To satisfy the objective of examining the effect of CamCCUL’s statutory activities on its affiliated Credit Unions, the Ordinary Least Square (OLS) Technique was used given that it was suitable at ascertaining causality and direction. In particular, the multiple regression analysis has been used given that the variables that make up CamCCUL’s statutory activities (independent variables) are five in number. The Ordinary Least Square technique assumes linearity which is represented by the linear equation:

\[ Y = a + bX + \epsilon \]

Where \( Y \) is the dependent variable (represented by performance of affiliated Credit Unions), \( X \) is the independent variable (represented by the CamCCUL’s statutory activities), \( a \) is the y-intercept, \( b \) is the gradient of the line, \( \epsilon \) is the unexplained variable or error.

The constants a and b are calculated using the following formulae:

\[
\begin{align*}
    a &= \bar{Y} - b \bar{X} \\
    b &= \frac{n \sum xy - (\sum x)(\sum y)}{n \sum x^2 - (\sum x)^2}
\end{align*}
\]

where:

\[
\begin{align*}
    n &= \text{number of pairs of scores} \\
    \sum xy &= \text{sum of the products of paired scores} \\
    \sum x &= \text{sum of x scores} \\
    \sum y &= \text{sum of y scores} \\
    \sum x^2 &= \text{sum of squared x scores} \\
    \sum y^2 &= \text{sum of squared y scores}
\end{align*}
\]

The correlation coefficient which measures the degree to which the independent variables affect the dependent variable is determined by the following formula and coefficient of determination is the square \((r^2)\) of correlation coefficient:

\[
r = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{n \sum x^2 - (\sum x)^2} \times \sqrt{n \sum y^2 - (\sum y)^2}}
\]

where:

\[
\begin{align*}
    n &= \text{number of pairs of scores} \\
    \sum xy &= \text{sum of the products of paired scores} \\
    \sum x &= \text{sum of x scores} \\
    \sum y &= \text{sum of y scores} \\
    \sum x^2 &= \text{sum of squared x scores} \\
    \sum y^2 &= \text{sum of squared y scores}
\end{align*}
\]

The model specification for this regression is presented subsequently. Using an established multiple regression equation, the data was processed with the use of STATA version 14 and tested for significance using the \(t\)-statistics at 10, five (5) and one (1) percent level of significance. The performance of the Credit Unions captured by the number of employees sent for training form the dependent variable while the activities of CamCCUL comprise the independent variables.

In order for the researcher to employ the multiple regression technique, a model needed to be specified, stipulating the variables involved.

Learning and innovation perspective
ET = f(Te + Au + Pp + Su + Lo) + e
ET = d0 + d1Te + d2Au + d3Pp + d4Su + d5Lo + e
Where: a0, b0, c0 and d0 are constants,
e is the extraneous (non-captured) variables
ax, bx, cx and dx were coefficients of the respective variables
x = 1, 2, 3, 4, 5

Findings
Table 1: Summary of descriptive statistics for all dependent and independent variables employed.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observation</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervision (Su)</td>
<td>41</td>
<td>1.336341</td>
<td>1.299492</td>
<td>0.09</td>
<td>5</td>
</tr>
<tr>
<td>Auditing (Au)</td>
<td>41</td>
<td>21.78683</td>
<td>33.94313</td>
<td>0.15</td>
<td>90.25</td>
</tr>
<tr>
<td>Training/education (Te)</td>
<td>41</td>
<td>22.51154</td>
<td>29.44417</td>
<td>0.025</td>
<td>85.01</td>
</tr>
<tr>
<td>Employees trained (ET)</td>
<td>41</td>
<td>150.5366</td>
<td>93.3124</td>
<td>12</td>
<td>364</td>
</tr>
<tr>
<td>Publicity/promotion (Pp)</td>
<td>41</td>
<td>42.52634</td>
<td>71.53479</td>
<td>0.21</td>
<td>230.45</td>
</tr>
<tr>
<td>Loans (Lo)</td>
<td>47</td>
<td>12926.52</td>
<td>13732.97</td>
<td>14</td>
<td>46341.05</td>
</tr>
</tbody>
</table>

Source: Computed by Author, 2017.

All the figures in Table 4.9 are stated in millions FCFA and the discussion for the various amounts have been explained in the following paragraphs. The supervision service provided by CamCCUL to all affiliated Credit Unions for over 41 years, has had an average expenditure of 1.336341 million FCFA. Though with a standard deviation of 1.299492 million FCFA, the expenditure had never been lower than 0.09 million for any financial year and had never exceeded 5 million FCFA a year. Auditing being a regulatory requirement to be carried out by CamCCUL to its affiliated Credit Unions is usually done on a yearly basis. Given the complexity of the service and the interruptions that it causes in the operations of Credit Unions, the league rarely performs interim audits. On average, the auditing service for the past 41 years had been 21.78683 million FCFA though this amount of expenditure may deviate from the mean giving a standard deviation of 33.94313 million FCFA. Regardless of the fluctuation in the expenditure on auditing, the minimum expenditure had been 0.15 million FCFA and the maximum amount had been 90.25 million FCFA.

The publicity/promotion that CamCCUL offers to its Credit Unions in various forms for the past 41 years had cost an average of 42.52634 million FCFA annually. However, the standard deviation was 71.53479 million FCFA implying the mean budget can be more or less by 71.53479 million FCFA, though its minimum amount had been 0.21 million FCFA and maximum amount of 230.45 million FCFA annually. In relation to the loans that CamCCUL offers to its affiliated Credit Unions it has an annual mean loan amount of 12926.52 million FCFA for the past 47 years, though the amount fluctuates with a standard deviation of 13732.97 million FCFA the least amount had been 14 million FCFA while the maximum loan amount had been 46341.05 million FCFA. The training/education provided by CamCCUL to its affiliated Credit Unions between 1975 and 2005 cost an average of 22.51154 million FCFA though the expenditure had a standard deviation of 29.44417 million FCFA. The minimum spending on training/education for the past 41 years had been 0.025 million while the maximum amount had been 85.01 million FCFA.

The number of employees that had been trained on yearly basis had been fluctuating to reflect the manpower need of the various Credit Unions though it is equally a legal requirement. On average, 151 employees are trained on yearly basis though the number fluctuates within a floor number of 12 employees and ceiling number of 364 employees, giving a standard deviation of 94 trained employees in a year.

Table 2: Unit root test for stationarity for data on training/education

<table>
<thead>
<tr>
<th>Phillips-Perron</th>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(rho)</td>
<td>-5.217</td>
<td>-18.220</td>
<td>-12.980</td>
<td>-10.500</td>
</tr>
<tr>
<td>z(t)</td>
<td>-9.838</td>
<td>-3.648</td>
<td>-2.958</td>
<td>-2.612</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for \( z(t) = 0.0000 \)

Augmented Dickey Fuller

<table>
<thead>
<tr>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(t)</td>
<td>-13.892</td>
<td>-3.655</td>
<td>-2.961</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for \( z(t) = 0.0000 \)

Source: Computed by Author, 2017
Table 3: Unit root test for stationarity for data on auditing

<table>
<thead>
<tr>
<th>Phillips-Perron</th>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(rho)</td>
<td>-38.144</td>
<td>-18.628</td>
<td>-13.172</td>
<td>-10.620</td>
</tr>
<tr>
<td>z(t)</td>
<td>-6.025</td>
<td>-3.607</td>
<td>-2.941</td>
<td>-2.605</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for z(t) = 0.0000

Augmented Dickey Fuller

<table>
<thead>
<tr>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(t)</td>
<td>-3.138</td>
<td>-3.655</td>
<td>-2.961</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for z(t) = 0.0314

Source: Computed by Author, 2017.

Table 4: Unit root test for stationarity for data on publicity/promotion

<table>
<thead>
<tr>
<th>Phillips-Perron</th>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(rho)</td>
<td>-39.689</td>
<td>-18.152</td>
<td>-12.948</td>
<td>-10.480</td>
</tr>
<tr>
<td>z(t)</td>
<td>-6.741</td>
<td>-3.655</td>
<td>-2.961</td>
<td>-2.613</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for z(t) = 0.0000

Augmented Dickey Fuller

<table>
<thead>
<tr>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(t)</td>
<td>-3.230</td>
<td>-3.655</td>
<td>-2.961</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for z(t) = 0.0166

Source: Computed by Author, 2017.

Table 5: Unit root test for stationarity for data on supervision

<table>
<thead>
<tr>
<th>Phillips-Perron</th>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(rho)</td>
<td>-46.982</td>
<td>-18.152</td>
<td>-12.948</td>
<td>-10.480</td>
</tr>
<tr>
<td>z(t)</td>
<td>-9.481</td>
<td>-3.655</td>
<td>-2.961</td>
<td>-2.613</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for z(t) = 0.0000

Augmented Dickey Fuller

<table>
<thead>
<tr>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(t)</td>
<td>-3.227</td>
<td>-3.662</td>
<td>-2.964</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for z(t) = 0.0234

Source: Computed by Author, 2017.

Table 6: Unit root test for stationarity for data on loans

<table>
<thead>
<tr>
<th>Phillips-Perron</th>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(rho)</td>
<td>-3.717</td>
<td>-18.628</td>
<td>-13.172</td>
<td>-10.620</td>
</tr>
<tr>
<td>z(t)</td>
<td>-7.276</td>
<td>-3.607</td>
<td>-2.941</td>
<td>-2.605</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for z(t) = 0.0000

Augmented Dickey Fuller

<table>
<thead>
<tr>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(t)</td>
<td>-3.433</td>
<td>-3.614</td>
<td>-2.944</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for z(t) = 0.0099

Source: Computed by Author, 2017.
Table 7: Unit Root Test for stationarity for the number of employees trained

<table>
<thead>
<tr>
<th>Phillips-Perron</th>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(rho)</td>
<td>-3.561</td>
<td>-18.220</td>
<td>-12.980</td>
<td>-10.500</td>
</tr>
<tr>
<td>z(t)</td>
<td>-3.914</td>
<td>-3.648</td>
<td>-2.958</td>
<td>-2.612</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for z(t) = 0.0019

Augmented Dickey Fuller

<table>
<thead>
<tr>
<th>Test statistic</th>
<th>1% critical Value</th>
<th>5% critical Value</th>
<th>10% critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>z(t)</td>
<td>-4.158</td>
<td>-3.655</td>
<td>-2.961</td>
</tr>
</tbody>
</table>

MacKinnon approximate P-value for z(t) = 0.0008

Source: Computed by Author, 2017.

Tables 1 to 7 above show the result of stationarity done with the use of the unit root test. The results revealed that all the variables under consideration were stationary, thus making the data suitable for a regression analysis. The regression analysis was done and the results has been presented on Table 8 below.

Table 8: Empirical results on the influence of CamCCUL’s activities on the number of trained employees in its affiliated Credit Unions in Cameroon.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t-statistics</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>∆TE</td>
<td>0.063318***</td>
<td>0.0304308</td>
<td>2.08</td>
<td>0.045</td>
</tr>
<tr>
<td>∆AU</td>
<td>-0.1291231***</td>
<td>0.0243903</td>
<td>-5.29</td>
<td>0.000</td>
</tr>
<tr>
<td>∆PP</td>
<td>0.0247925</td>
<td>0.0216103</td>
<td>1.15</td>
<td>0.259</td>
</tr>
<tr>
<td>∆SU</td>
<td>0.1688152***</td>
<td>0.0840044</td>
<td>2.01</td>
<td>0.052</td>
</tr>
<tr>
<td>∆LO</td>
<td>0.5724064***</td>
<td>0.0589579</td>
<td>9.71</td>
<td>0.000</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>-0.4021342</td>
<td>0.5233882</td>
<td>-0.77</td>
<td>0.447</td>
</tr>
</tbody>
</table>

F-statistic (5, 35) = 187.85  Probability (F - Statistic) = 0.0000
R – Square = 0.9641
Adjusted R- square = 0.9589

Durbin-Watson Statistics (5, 40) = 1.6951
Jarque-Bera Test Statistic for normality  Chi² (2) = 0.4175  Probability value = 0.8031
Breusch-Pagan/ Cook-Weisberg test for Heteroscedasticity  Chi² (1) = 0.21  Probability value = 0.6447

Note: *** , ** and * indicates a 1%, 5% and 10% level of significance
Source: Computed by Author, 2017

Based on the information presented on Table 8, the dependent variable under study is ET representing the number of employees trained whereas the independent variables are training/education, auditing, publicity/promotion, supervision and loans. Training/education, supervision, publicity/promotion and loans jointly affect the number of trained employees in affiliated Credit Unions positively as represented by the d₁, d₃, d₄ and d₅ which are 0.063318, 0.0247925, 0.1688152 and 0.5724064 respectively. This positive effect implies that, an increase in these variables equally resulted in an increase in the number of trained employees in affiliated Credit Unions though not in equal proportions.

The positive effect of CamCCUL’s expenditure on training/education was justified in that, the more funds are injected in training, the higher the likelihood that the number of employees trained would increase. In the same manner, the higher the expenditure on supervision, the higher the likelihood that regulations will be complied to, one of which is the responsibility of institutions to provide training to employees. Additionally, the increase in supervision is likely to increase management’s attention to satisfying other stakeholders like the employees which is usually in the domain of training and other continuous professional development programmes. More so, the higher the amount of loans granted to CamCCUL’s affiliate Credit Unions, the higher the number of employees trained. The loans granted are most likely to improve the liquidity levels of the Credit Unions which will in turn generate more savings and as such, serve as a justification for more employees to be trained to handle multiple tasks or improve on their efficiency to cope with additional challenges inherent in organisational growth.

In contrast to the behaviour of other independent variables, auditing rather had a negative coefficient as represented by d₂ (-0.1291231). This implies that an increase in expenditure on auditing services provided by CamCCUL to its affiliated Credit Unions lowers the number of employees to be trained. This is in line with previous findings that, auditing was described by most management of affiliated Credit Unions as a value decreasing activity of CamCCUL in which they commented that the significant resources spent on auditing are disproportionate to the little benefits derived from it. This claim justifies the reduction in the number of trained employees through the expenditure on auditing.
employees associated to the increase in auditing given that a reduction in the scale of operations will definitely leave management with no choice but to scale down on its internal processes including the number of trained employees.

The constant term was represented by \( d_0 \) which is the number of trained employees in situations where CamCCUL does not spend on training/education, publicity/promotion, auditing, supervision and loan provision. This constant value is \(-0.4021342\) which implies that employees rather loose skills and knowledge if CamCCUL does not provide tailored services to its affiliated Credit Unions in Cameroon. This implies that all employees who acquired additional skills and knowledge was solely attributed to the efforts of CamCCUL, implying no learning is possible at the level of respective Credit Unions or at individual employee levels.

However, the findings of the constant term or the y-intercept were not significant even at 10 percent level of significance and as such cannot be considered reliable for managerial decision making. On the contrary, the t-calculated values of auditing and loans are greater than the t-critical values for N-1 (39) degree of freedom at one percent significance level under a one-tailed test. Thus, the values of auditing and loans are significant at one percent level of significance while those of training/education and supervision are significant at five percent level of significance under a one-tailed test. Publicity/promotion is however not significant even at the least acceptable level of significance which is 10 percent.

The adjusted correlation coefficient is represented by Adjusted R-square which is 0.9589 (95.89 percent). This value implies that the combined efforts of training/education, auditing, publicity/promotion, supervision and loans had a 95.89 percent effect on the number of employees trained in affiliated Credit Unions in Cameroon. Conversely, the remaining 4.11 percent effect on number of employees trained can be accounted for by other variables not captured in the specified model. Analysing further, the coefficient of determination represented by \((R^2)\) is 0.9195 or 91.95 percent. This value implies 91.95 percent of changes in the number of employees trained in affiliated Credit Unions can be accounted for by changes in CamCCUL’s expenditure on training/education, publicity/promotion, auditing, supervision and loans.

The F-statistics value provides an overall reliability of the results based on the specified model under consideration. The F-calculated was 187.85 which is greater than the F-critical value of 3.605 (F-calculated value > F-critical value). With respect to the decision rule, the researcher rejects the null hypothesis \( (H_0) \) which states that CamCCUL’s expenditure on training/education, auditing, publicity/promotion, supervision, loan provisions do not significantly affect the number of trained employees in affiliated Credit Unions in Cameroon. We thus conclude that CamCCUL’s expenditure on training/education, auditing, publicity/promotion, supervision and loan provisions significantly affect the number of trained employees in affiliated Credit Unions in Cameroon.

The results obtained from the post-tests conducted for the specified model are equally presented in Table 8. The Durbin-Watson test for autocorrelation generated a correlation value of 1.6951 which is within the acceptable range of 1.5 and 2.5 for time series data. The degree of autocorrelation cannot therefore significantly affect the findings presented. In addition to testing autocorrelation, the Jarque-Bera test of normality has equally been conducted. The results reveal a chi-square value of 0.4175 which is higher than the p-value of 0.8031. In line with the decision rule stated earlier, the null hypothesis is rejected and the alternative is confirmed that the data is normally distributed. Further analysis with the use of the Breusch-Pagen/Cook-Weisberg test of heteroscedasticity shows that the chi-square value of 0.21 is lower than the p-value of 0.6447, implying that the data has a constant variance. The overall findings are therefore appropriate and can thus be consulted for decision making by various stakeholders.

**Discussion of findings**

Though the Credit Unions in Cameroon have played a vital role in the development of both individuals and the economy as a whole and especially breaking into villages and operating like the Grameen Bank solidarity concept which was advocated in 1976 by a social entrepreneur and a Noble Peace winner, located in Bangladesh by the name - Muhammed Yunus in 1976, however the spread of Credit Unions have not been able to completely overshadow Rotating Savings and Credit Associations (ROSCAs) commonly known as “njangi” in Cameroon that operates like “Osusu” in Nigeria.

The Credit Unions in Cameroon, particularly those in the less developed towns commonly rely on the “Daily card marking arrangement” commonly called “akawo”. This approach has improved on the liquidity levels of the Credit Unions to a great extent, though some unscrupulous individuals have passed off as workers of these Credit Unions and collected daily savings which were never reported to the said Credit Unions. Such acts have tarnished the reputation of the Credit Unions considerably.

The findings of this study equally reveal that training/education and supervision significantly affect the performance of Credit Unions in multiple ways. Unfortunately, poor systems of supervision and training are being conducted by CamCCUL on affiliated Credit Unions, with some of the decisions handled at Chapter level with little or no directives, Hussain (2014) concurs this by citing poor government supervision and lack of programmes to educate members at the grassroots.
The study has ascertained the effect of loans which come to improve on the financial needs of Credit Unions, as well as trained employees who acquire upgrades and skills necessary to improve the efficiency and quality of services rendered. In the same pattern, Nyambere (2013) observed how much the performance of microfinance institutions are affected by capital adequacy, asset quality, management efficiency earning and liquidity.

Recommendations
The government through the league should make it compulsory for management to present comprehensive reports which are both quantitative and qualitative to show all aspects of performance for various stakeholders to rely upon in taking decisions about the Credit Unions rather than only the traditional financial reporting.

Through the League, a comprehensive performance target could be imposed on affiliated Credit Unions. This will give rise to a holistic performance review which is vital to notify the management of various Credit Unions the possibility of surviving in the short, medium and long term.

Performance assessment for affiliated Credit Unions by the supervisory body or the ministry at large should not be based on yearly performance which is seen as a short term reflection of corporate results. Rather, a longer period of three to five years should be used to ensure that the effect of innovation and learning has been appropriately reflected on the corporate performance statements.

REFERENCES


