ABSTRACT: Financial innovation can be considered to be one of the crucial determinants for the performance of an organization. Various financial institutions have adopted various ways to enhance competition from other financial institutions and enhance their profitability in the market. In Kenya, SACCOS are noted to be the main drivers of the economy. They offer quick services such as quick and flexible loans to individuals seeking finance from micro-institutions rather than commercial banks. This study sought to investigate the effect of financial innovation on the financial performance of DT-SACCOS operating in Kenya. The target population of the study was the 69 DT-SACCOS from where 49 were used based on data availability. Primary data was gathered from operational managers through self-administered questionnaires after a pilot test is conducted to test the validity of the questionnaire. The data collected was condensed and analysed descriptively using the mean and standard deviation and inferentially using correlation and regression analyses. The findings of the first objective reveal that Institutional financial innovations have a statistically significant effect on the financial performance of DT-SACCOs in Kenya; Financial Products Innovations has a statistically significant effect on financial performance of DT-SACCOs in Kenya; Financial Process Innovations had a statistically significant effect on the ability of DT-SACCOs in Kenya to maintain their financial performance; a demonstrably beneficial impact that Financial Process Innovations has on the long-term financial performance of DT-SACCOs in Kenya.

Key Words: Financial Innovations, Financial performance

1.0 INTRODUCTION

1.1 Background of the Study
Globally, the financial performance of Savings and Credit Cooperative Societies (SACCOs) has been improving steadily with time as shown by the increase in membership which is approximated at one billion, with the turnover from the world’s 300 top SACCOs amounting to $2.5 trillion as at December 2017 (International Cooperative Alliance, 2017). This increase is attributed to the ever-increasing need for mobilisation funds and investment especially from the low-income earners (Rejda, 2018). However, this growth is threatened by financial and operational risk (Santomero, 2019). The global financial crisis which the world is recovering from has made financial innovations in financial institutions including SACCOs an integral part in day to day operations (International Cooperative Alliance, 2017).

Financial innovation can be described as the coming up of new technologies that have an overall effect on an institution’s performance and mode of operations. These innovations specifically affect the organization’s revenue and risk by either increasing or reducing it thus affecting the overall performance of the organization. The most noticeable form of financial innovations is in the form of institutional investment, product innovations, service innovations and process innovations (Mobility, 2019). Financial innovations can be grouped as new products (such as adjustable rate mortgages and...
Financial innovations can be grouped as new products (such as adjustable rate mortgages and exchange-traded index funds); new services (such as on-line securities trading; Internet banking and mobile banking); new "production" processes (such as credit scoring); or new organizational forms such as agency banking and Internet-only banks (Hayashi & Klee, 2013).

Internet banking is among the innovations in the financial market. The use of Block-chain technology has allowed financial institutions to link their ledgers, allowing easier comparability of data. They would also reduce remittance costs between financial institutions thus increasing revenue (Mobility, 2019). Mobile banking is also another financial innovation. It allows financial institutions to make basic transactional services such as cash deposit and withdrawal easily accessible to their clients. Mobile banking has also allowed faster money transfer between individuals. This has allowed financial institutions to carry out transactions within the required time and provided a secure means of banking for individuals using security protocols to prevent unauthorized access of information.

In promotion of financial inclusion and financial deepening SACCOs worldwide recently have experienced major financial innovation in their effort of offering financial services to the marginalized persons and middle-income earners. This has been highly embraced in countries like Colombia, India, Brazil and USA (Duguma & Han, 2018). The financial innovations in SACCOs are of much importance more so to Africa in its fight against poverty as enshrined in sustainable development goals. Africa contributes to 48 percent of poverty level worldwide (Omilola & Lerven, 2019).

Since African SACCOs are members owned, they need to finance themselves without relying on grants and donor funding which are not fully sustainable (Tumwine, 2015). Thus, they need to have differentiated products and services that are customers centered so as to attract more members. Developing of innovated savings products has assisted Ethiopian SACCOs mobilize more deposits which assist them remain financially sustainable. SACCOs automation and digitization has made transactions paperless, easier and open in African countries like South Africa, Uganda, Malawi and Kenya. It reduces the SACCOs operational costs through widening their members’ size beyond borders (Duguma & Han, 2018).

Across Africa and elsewhere, there are now numerous examples of bottom of the pyramid innovation by formal financial institutions – whether in the form of new products, reconfigured business processes, branchless banking strategies, innovative partnerships and so on (Kasekende et al, 2019). In many cases, the innovation has been highly profitable – not always material in the context of existing institution’s group profits, but sometimes exhibiting dramatic growth rates. Common to most
Kenyan SACCOs have been in the forefront in Africa and ranked 11th position globally (WOCCU, 2018). The sector consists of Deposit Taking Savings and Credit Co-operative Societies (DTSACCOs) and non-Deposit Taking Savings and Credit Co-operative Societies (Mugo et al., 2018). SACCOs that offer back office services activities are supervised by the Commissioner for Cooperatives. Additionally, those that offer front office services activities are licensed and regulated by SASRA but they have to be fully registered under the Cooperative Societies Act CAP 490. A 6.3 percent of Kenyans are members of DT-SACCOs which employ over 250,000 people and over 60 percent of the population depends on SACCO related activities (FinAccess, 2016). They also contribute by 45 percent to the Kenya's gross domestic product (KUSCCO, 2015).

The asset base of these societies has grown from Kshs 442 billion in 2017 to Kshs 495 billion in 2018. Deposits have also increased from Kshs 305 billion in 2015 to Kshs 341 billion in 2018 (SASRA, 2018). This can be attributed to DT-SACCOs offering bank-like services, such as current and saving accounts, debit cards, advances and money transfers. Front office services activities came about after banks regarded many rural areas as increasing their operation costs and the population was left un-banked (Njenga, et al., 2015).

Kenya has made herself a hub for financial innovations like agency and mobile banking which has assisted in financial deepening. DT-SACCOs has embraced this technology in offering their products and services such as cash deposits, withdrawal of cash and opening of accounts to the unbanked in the society which puts them in a better competitive position (Moki, et al., 2019). Additionally, they have invested more on internet and mobile banking as compared to use of automatic teller machines. Financial innovation has contributed to easy and quick access of information and services to the clientele and reduced the ever-increasing operation costs of the DT-SACCOs. Thus, DT-SACCOs that embrace financial innovation are more likely to be financially sustainable than those that don’t (Njenga, et al., 2015). This has seen DT-SACCOs accept usage of innovated products like credit cards, feature codes, M-pesa and debit cards which provide a platform for e-commerce. Hence, leading to upgraded service delivery, enhanced efficiency, and condensed operational costs (Sum & Memba, 2016).

Financial innovation is utilized by the DT-SACCOs that are in search of more returns as they minimize risks. This is witnessed by DT-SACCOs in Kenya upgrading from common bond to open bond to attract more deposits from large population of clients or members (Simiyu & Olweny, 2018). However, financial performance of a number of DT-SACCOs has been shown to be poor as evidenced by late payments of dividends, request to capitalise member deposits and regular red-alert news from media. The role of financial innovations on financial performance of these DT-SACCOs is largely unknown.
Research performance is the profitability of a business enterprise measured through various measures mostly return on assets and return on equity. Profit-seeking enterprises and individuals are constantly seeking new and improved products, processes, and organizational structures that will reduce their costs of production, better satisfy customer demands, and yield greater profits. Sometimes this search occurs through formal research and development programs; sometimes it occurs through more informal "tinkering" or trial and error efforts. When successful, the result is an innovation. The consequences of financial innovation in terms of the payoffs to the innovators and the impact on society as a whole have been a subject for theoretical literature. Innovation generally does seem to have positive effects in raising financial performance of innovators (Boot & Thakor, 2017).

The increasing demise of 10.8 percent of the DT-SACCOs would lead to high rate of entrepreneurial decline and job loss hence the gross domestic product will decline (SASRA, 2017). Owing to all these, a solution is vital to avoid members losing value for their hard-earned money since deposits are not protected and DT-SACCOs do not have access to lender of last resort in case they are financially underperforming. The role of financial innovations on financial performance of these DT-SACCOs is largely unknown. The present study therefore sought to investigate the effect of financial innovations on financial performance of DT-SACCOs in Kenya.

1.2 Research Objective
The main objective of the study was to investigate the effect of financial innovations on financial performance of DT-SACCOs in Kenya.

1.3 Research Hypothesis
H0: Financial innovations have no significant effect on financial performance of DT-SACCOs in Kenya

2.0 Research Methodology
This study adopted a descriptive survey design with quantitative and qualitative approaches. Kothari (2004) defines descriptive survey design as the process of describing, recording, analyzing and reporting the existing conditions. Tavakoli (2012) notes that descriptive survey design examines at individuals, groups, institutions, methods and materials in order to describe, classify, analyze and interpret the entities and the events in various fields of inquiry. The total population of this study was the accessible 69 DT-SACCOs in Kenya. The Financial Managers of the DT-SACCOs formed the unit of observation. Since the target population is small, all the 69 DT-SACCOs whose data was accessible formed the sample for the study.

In this study primary data was collected through a survey questionnaire. The survey questionnaire was considered appropriate tool since it allowed quick and efficient data collection. It also allowed descriptive, correlation and inferential statistical analysis of the data to be collected (Saunders, Lewis, & Thornhill, 2007). A Likert scale was used in the questions assessing the degree of the respondents' agreement with particular variables of the study. The questionnaires were designed to
The questionnaire designed based on the research questions was pilot-tested to refine the questionnaire before it was administered to the selected sample. Questionnaires were assessed in terms of reliability using the Cronbach alpha technique. According to Mugenda and Mugenda (2009) reliability is a measure of the degree of a research instrument to replicate consistent results after repeated trials. Fraenkel and Wallen (2006) have recommended that reliability test which produces Cronbach alpha (α) values of greater than 0.70 is sufficient in declaring the questionnaires reliable. The study used the Content Validity Index (CVI) which is a scale developed by computing or rating the relevant items in the instrument or questionnaire by checking their clarity, their meaningfulness in line with all objectives stated dividing by the total number of items to test for validity of the research instrument (Fisher, 2004). The validity was described as follows: CVI = Relevant Items/Total number of items. The threshold of the CVI was 0.7 (Fisher, 2004), below which the instrument was considered invalid. Construct validity will be tested using the Component Factor Loadings.

Primary data from the field was edited to check the errors in the raw data. Data was analyzed through descriptive and inferential statistics. The data from questionnaires was analyzed with the aid of the Statistical Package for Social Sciences (SPSS) version 24 due to speedy and accurate analysis of data. Regression analysis was done to determine the extent of that relationship between the independent variables and the dependent variable. The prediction of Y was accomplished by the following regression model:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \]

Where:
- \( Y \) = Financial Performance
- \( X_1 \) = Institutional Financial Innovation
- \( X_2 \) = Financial Product Innovation
- \( X_3 \) = Financial Service Innovation
- \( X_4 \) = Financial Process Innovation
- \( \beta_0, \beta_1, \beta_2, \beta_3 \) and \( \beta_4 \) = Regression Coefficients for the independent variables
- \( \epsilon \) = Error term.

### 3.0 Results and Discussion

#### 3.1 Descriptive Statistics of Study Variables

As shown by a mean of 3.88 and a standard deviation of 1.05, the findings presented in Table 1 demonstrated that the majority of respondents agreed that their organizations had a clear business financial structure. A mean score of 4.01 and a standard deviation of 0.90 demonstrate that the
SACCOs has adopted advanced technologies. There was an agreement that the SACCOs had partnered with various financial intermediaries, according to the respondents (Agree = 45.9%; Strongly agree = 16.4%; Mean = 3.53).

Moreover, the respondents agreed that the SACCOs are guided by a clear financial legal framework, as shown with a mean of 3.69 and a standard deviation of 1.06. The respondents also agreed with the statements that there is there is a supervisory framework that monitors the SACCO, with averages of 3.19 and 4.22, respectively. Respondents mostly concurred that control actions were carried out in DT-SACCOs in Kenya.

Table 1: Descriptive Statistics for Institutional Financial Innovations

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD (%)</th>
<th>D (%)</th>
<th>N (%)</th>
<th>A (%)</th>
<th>SA (%)</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>My organization has a clear business financial structure.</td>
<td>4.9</td>
<td>8.5</td>
<td>6.9</td>
<td>52.8</td>
<td>26.9</td>
<td>3.88</td>
<td>1.05</td>
</tr>
<tr>
<td>The SACCO has adopted advanced technologies.</td>
<td>3.3</td>
<td>4.6</td>
<td>6.9</td>
<td>57.7</td>
<td>27.5</td>
<td>4.01</td>
<td>0.90</td>
</tr>
<tr>
<td>The SACCO has partnered with various financial intermediaries.</td>
<td>7.5</td>
<td>10.2</td>
<td>20.0</td>
<td>45.9</td>
<td>16.4</td>
<td>3.53</td>
<td>1.11</td>
</tr>
<tr>
<td>The SACCO is guided by a clear financial legal framework.</td>
<td>6.9</td>
<td>7.9</td>
<td>11.5</td>
<td>56.1</td>
<td>17.7</td>
<td>3.69</td>
<td>1.06</td>
</tr>
<tr>
<td>There is a supervisory framework that monitors the SACCO.</td>
<td>13.8</td>
<td>20.3</td>
<td>9.8</td>
<td>44.9</td>
<td>11.1</td>
<td>3.19</td>
<td>1.27</td>
</tr>
<tr>
<td>The SACCO has institutionalized processes in its strategy</td>
<td>3.0</td>
<td>2.0</td>
<td>4.6</td>
<td>50.5</td>
<td>40.0</td>
<td>4.22</td>
<td>0.86</td>
</tr>
</tbody>
</table>

As the findings in Table 2 portray, respondents were complacent regarding the statement that the SACCOs develop new products quite regularly (Mean = 3.43, SD = 1.12). On the other hand, the respondents agreed with the statements that the SACCOs offered improved financial products to its customers (Mean = 3.67, SD = 1.01) and the one that the financial products offered are unique (Mean = 3.23, SD = 1.19). Both of these statements have a mean value of 3.67 and a standard deviation of 1.01. Additionally, they agreed with the statement that financial products offered by their SACCO are competitive (Mean = 3.68, SD = 1.61); however, they did not agree with the statement that the financial products offered by their SACCO are highly differentiated (Mean: 2.32, Standard Deviation: 1.6117). The respondents, on the whole, gave the impression that they were in agreement with the existence of Financial Products Innovations as a practice in DT-SACCOs in Kenya.

Table 2: Descriptive Statistics of Financial Products Innovations

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD (%)</th>
<th>D (%)</th>
<th>N (%)</th>
<th>A (%)</th>
<th>SA (%)</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
</table>

The SACCO develops new products quite regularly. 7.5% 16.4% 12.5% 51.8% 11.8% 3.43 1.12

The SACCO offers improved financial products to its customers. 5.2% 9.2% 13.4% 57.0% 15.1% 3.67 1.01

The financial product performance is relatively high compared to other financial institutions. 4.3% 11.1% 12.5% 49.5% 22.6% 3.75 1.05

The financial products offered by our SACCO are highly differentiated. 9.8% 18.4% 41.5% 20.5% 9.8% 2.32 1.17

Our financial products are unique 11.1% 19.7% 32.8% 27.5% 8.9% 3.23 1.19

The financial products offered by our SACCO are competitive 13.4% 14.1% 46.2% 7.4% 18.9% 3.68 1.61

The majority of respondents believed that their SACCO has a well-articulated financial service innovation process, as shown by a mean score of 3.51 and a standard deviation of 1.09 in Table 2's data. As shown by a mean of 2.86 and a standard deviation of 1.21, the respondents believed that their SACCO had enacted changes in provision of its services. The number of respondents strongly disagreed with this statement was 36.4%, and the number disagreed was 26.6%. As indicated by the fact that 48.0% of the cases were neutral and a mean score of 3.02, the respondents did not have a strong opinion on the assertion that SACCOs had adopted an improved cost effective process of operations. According to the findings, financial services innovation can be found in the DT-SACCOs in Kenya.

Table 3: Descriptive Results on Financial Services Innovations

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD (%)</th>
<th>D (%)</th>
<th>N (%)</th>
<th>A (%)</th>
<th>SA (%)</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our SACCO has a well-articulated financial service innovation process.</td>
<td>7.2</td>
<td>12.5</td>
<td>14.4</td>
<td>53.1</td>
<td>12.8</td>
<td>3.51</td>
<td>1.09</td>
</tr>
<tr>
<td>Our SACCO has enacted changes in provision of its services.</td>
<td>66.4</td>
<td>26.6</td>
<td>15.7</td>
<td>16.7</td>
<td>4.6</td>
<td>2.86</td>
<td>1.21</td>
</tr>
<tr>
<td>Our SACCOs has adopted an improved cost effective process of operations.</td>
<td>12.8</td>
<td>23.9</td>
<td>48.0</td>
<td>8.7</td>
<td>6.6</td>
<td>3.02</td>
<td>1.18</td>
</tr>
<tr>
<td>Our SACCO has automated its financial service delivery.</td>
<td>10.8</td>
<td>12.8</td>
<td>16.1</td>
<td>49.8</td>
<td>10.5</td>
<td>3.36</td>
<td>1.16</td>
</tr>
<tr>
<td>The financial services innovation initiated by our SACCO are competitive</td>
<td>13.4</td>
<td>14.1</td>
<td>7.4</td>
<td>46.2</td>
<td>18.9</td>
<td>3.98</td>
<td>1.01</td>
</tr>
<tr>
<td>Our Financial Services Innovations are competitive.</td>
<td>4.3</td>
<td>4.9</td>
<td>10.8</td>
<td>47.2</td>
<td>32.8</td>
<td>3.99</td>
<td>1.01</td>
</tr>
</tbody>
</table>

The other sub-objective of the study was to establish the effect of Financial Process Innovations on the financial performance of DT-SACCOs in Kenya. The descriptive statistics for the objective are shown in Table 4 below.
Table 4: Descriptive Results of Financial Process Innovations

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD (%)</th>
<th>D (%)</th>
<th>N (%)</th>
<th>A (%)</th>
<th>SA (%)</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our SACCO has a well-articulated process design strategy.</td>
<td>13.4%</td>
<td>15.4%</td>
<td>20.3%</td>
<td>43.6%</td>
<td>7.2%</td>
<td>3.15</td>
<td>1.18</td>
</tr>
<tr>
<td>Our SACCO has initiated new processes in its service provision.</td>
<td>20.0%</td>
<td>20.3%</td>
<td>26.6%</td>
<td>28.9%</td>
<td>4.3%</td>
<td>2.77</td>
<td>1.18</td>
</tr>
<tr>
<td>The Process Innovations initiated by our SACCO have made it competitive among its peers</td>
<td>9.2%</td>
<td>7.2%</td>
<td>22.3%</td>
<td>44.9%</td>
<td>16.4%</td>
<td>3.52</td>
<td>1.12</td>
</tr>
<tr>
<td>Our SACCO has continuously automated its financial processes delivery.</td>
<td>25.2%</td>
<td>21.6%</td>
<td>20.3%</td>
<td>26.6%</td>
<td>6.2%</td>
<td>2.66</td>
<td>1.27</td>
</tr>
<tr>
<td>The Process Innovations by our SACCO make it competitive.</td>
<td>12.5%</td>
<td>18.0%</td>
<td>16.7%</td>
<td>43.3%</td>
<td>9.5%</td>
<td>3.19</td>
<td>1.20</td>
</tr>
<tr>
<td>Our SACCO has institutionalised processes innovations</td>
<td>9.5%</td>
<td>7.9%</td>
<td>16.4%</td>
<td>49.8%</td>
<td>16.4%</td>
<td>3.55</td>
<td>1.14</td>
</tr>
</tbody>
</table>

As shown by a mean of 3.52 and a standard deviation of 1.12, the respondents agreed that Process Innovations initiated by their SACCO had made them competitive among their peers. With a mean score of 2.66 and a standard deviation of 1.27, the findings show that the respondents were neutral about the statement that the SACCOs had continuously automated their financial processes delivery. The statements that the SACCOs had institutionalised process innovations with a mean of 3.55 and a standard deviation of 1.44, and there was a general agreement on the statements that process innovations by the DT-SACCOs made them competitive with a mean of 3.19 and a standard deviation of 1.20.

### 3.2 Inferential Results

In order to determine if there is a connection between the variables, this study used correlation analysis, as described by Pallant (2010). If the correlation value is 1, then the two variables are completely linearly related to one another. An inverse linear relationship between the two variables is shown by a correlation coefficient of -1. A zero value for a correlation coefficient indicates that there is no linear relationship between the two variables. The findings of the correlation study are shown in Table 5.

Table 5: Correlation between Study Variables

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>X4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X1</td>
<td>.746***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X2</td>
<td>.794***</td>
<td>.136</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The findings point to a statistically significant and favorably correlated relationship between control actions ($X_1$) and the continued financial performance of DT-SACCOs in Kenya. This is supported by a correlation coefficient of 0.746, which is much higher than 0.01, the threshold for statistical significance. This finding implies that an increase of one unit in Institutional financial innovations is anticipated to equate to a rise of 0.746 units in the financial performance of DT-SACCOs in Kenya.

A correlation coefficient of 0.794 demonstrates that there is a substantial and positive association between Financial Products Innovations and the capacity of DT-SACCOs in Kenya to be financially viable in the long run. This indicates that the financial performance of DT-SACCOs in Kenya should improve by 0.794 units in the event that an increase of one unit in the amount of Financial Products Innovations in DT-SACCOs in Kenya is implemented.

Financial Process Innovations have a strong and positive association with the capacity of DT-SACCOs in Kenya to remain in operation, as shown by a correlation coefficient of 0.872. This suggests that this connection is positive. This demonstrates that an increase of one unit in Financial Process Innovations and evaluation is associated with an increase of 0.872% in the financial performance of DT-SACCOs in Kenya in the region. The correlation between Financial Process Innovations and the ability of DT-SACCOs in Kenya to maintain financial performance was determined to have a statistically significant value of 0.612 in the study. According to these findings, a one-unit gain in tracking is equivalent to a 0.612-unit increase in the performance of DT-SACCOs in Kenya. The findings of the correlation analysis shown in Table 5 demonstrate, in general, that there is a positive and substantial association between the innovation factors identified and financial performance.

The results from performing regression analysis on the data that was collected are reported in the sub-sections that come after this one. Regression analysis is used to learn more about the connections between various factors. To better understand how variables are statistically related, regression analysis can be used, as explained by Young (2014). As a result, the study's ability to draw useful conclusions and provide useful recommendations is enhanced.

### Table 6: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.856*</td>
<td>.732</td>
<td>.728</td>
<td>.000</td>
</tr>
</tbody>
</table>

The summary of the model is presented in the Table 6 that can be found above. It shows that there is a significant and positive overall association between the identified components and the financial performance of DT-SACCOs in Kenya. The fact that the model has a correlation coefficient of 0.856
Research Bridge Publisher, International Journal of Social Science and Humanities Research, Vol. 1, Issue 1, pp: (525-538), Month: June - December 2023, Available at: https://researchbridgepublisher.com/
makes this quite clear. The value of the model's coefficient of determination, or R square, which was 0.728, suggests that it is effective in forecasting financial performance DT-SACCOs in Kenya now and in the future. This suggests that about 72.8% of the variation in financial performance can be predicted by applying the identified financial innovations, while the remaining 27.2% is influenced by additional practices that are not included in the model. This is the case since the model includes just certain practices. The robust association that exists between the variables is indicative of how well the model fits its data, as demonstrated in Table 7.

Table 7: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>60.425</td>
<td>4</td>
<td>15.11</td>
<td>98.117</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>6.773</td>
<td>44</td>
<td>.154</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>67.198</td>
<td>48</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X₁, X₂, X₃, X₄
b. Dependent Variable: Y

The analysis of the variance table that is presented in Table 7 shows that the predictive model has significant implications for the long-term financial performance of DT-SACCOs in Kenya. This model takes into account the identified aspects of Institutional Financial Innovations, Financial Products Innovation, Financial Services Innovations, and Financial Process Innovations. The investigation findings show a considerable F-value of 98.117, which is notable from a statistical point of view. This suggests that the model is a useful tool for predicting the extent to which DT-SACCOs in Kenya will be able to maintain their financial performance.

Table 8: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>0.376</td>
<td>0.286</td>
</tr>
<tr>
<td>X₁</td>
<td>0.391</td>
<td>0.165</td>
</tr>
<tr>
<td>X₃</td>
<td>0.296</td>
<td>0.156</td>
</tr>
<tr>
<td>X₄</td>
<td>0.372</td>
<td>0.162</td>
</tr>
</tbody>
</table>

Dependent Variable: Y

The information presented in Table 8 allows for various deductions to be drawn. The constant term in the regression equation for DT-SACCOs in Kenya is 0.376, reflecting the baseline financial performance level. Using a regression model that was based on previously found features, the primary objective was to investigate the effect of financial innovations on the continued financial performance of DT-SACCOs in Kenya over the long term.

Table 9 demonstrates that the implementation of institutional financial innovations results in a
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statistically significant increase in the financial performance of DT-SACCOs in Kenya \( (X_1 = 0.391, \ p = 0.038) \). This indicates that the financial performance of DT-SACCOs in Kenya increases by 39.1 percent for every additional unit of Institutional financial innovations that is implemented. These results are in agreement with those by Harelimana (2017) who conducted an analysis over a sample of 132 financial institutions in Rwanda. The results are also in agreement with those by Kibugo (2016) who examined the financial innovation’s effect on the performance of SACCOs in Nakuru established the existence of a supervisory framework that guides SACCOs, and another local study by Njoroge (2013) to test effects of innovation on the financial performance of SACCOs, proved that innovation is a key determinant in the performance of SACCOs. These studies showed a positive significant effect of institutional financial innovations.

Second, the study sought to establish how much of an effect Financial Products Innovations has on the long-term performance of DT-SACCOs in Kenya. Table 9 shows that Financial Products Innovations positively affects the long-term financial performance of DT-SACCOs in Kenya \( (X_2 = 0.401, \ p = 0.021) \). This suggests that a 40.1% improvement in the financial performance of DT-SACCOs in Kenya may be expected from a one-unit increase in financial products innovations. The results of the study agree with those by Muteke (2015) whose study focus were Savings and Credit Co-Operative Societies (SACCOs) in Mombasa, Kenya. It was ascertained in the study that institutional innovation marginally but positively influenced performance. Moreover, the results are in tandem with those by Kojo and Yazidu (2015) carried out a study on financial characteristics and innovations in microfinance institutions in Ghana. The results however contradict those of Atieno (2014) whose study purposed to establish the innovative products available for Small and Medium Enterprises (SMEs) in Kenya. The study established that microfinance innovative products were positively but insignificantly correlated to access to finance by SMEs. It was noted that innovative loan products and saving products improved access to finance by SMEs.

The regression analysis of the third sub-objective, which sought to establish how much of an influence the Financial Services Innovations has on the long-term performance of DT-SACCOs in Kenya, indicated a positive effect \( (X_3 = 0.296, \ p = 0.010) \). This indicates that the financial performance of DT-SACCOs in Kenya increases by 29.6% for every extra unit of Financial Services Innovations that is present. These results are consistent with those found by Oloo (2017) who revealed that the flurry of fresh entrants in some countries is credited with helping to drive down banking charges, improve access to banking services and spark off a wave of new products and services. In Kenya, where less than a quarter of the population has bank accounts (Mwangi, 2017), banks have been spurred into action in the consumer market by the success of the mobile money transfer services. Money transfer services were first launched by Kenyan mobile operator Safaricom in 2007 via M-Pesa and other mobile operators now provide similar services.

The study's fourth sub-objective was to establish how much of an effect Financial Process Innovations has on DT-SACCOs in Kenya. Regression analysis showed that financial process
innovation has a significant and favourable influence ($X = 0.372$, $p = 0.000$) on DT-SACCOs in Kenya. This means that, all else being equal, the financial performance of DT-SACCOs in Kenya increases by 37.2% for each additional Financial Process Innovations unit added. These findings are consistent with those of Muraleetharan (2011), who investigated the effect of internal management strategies on the long-term sustainability of institutions in Sri Lanka's northern Jaffna area. The results provided here are consistent with what he found. Internal control systems for detecting fraud in a representative sample of Nigerian commercial banks were the subject of research by Idowu and Adedoku (2013).

5.0 Conclusions
It is possible to draw the following conclusion based on the findings of the study objectives which indicated a positive and significant effect of financial innovations on the financial performance of DT-SACCOs in Kenya: when all other factors are held constant, financial innovations play a crucial role in enhancing the financial performance of these DT-SACCOs in Kenya.

6.0 Recommendations
As a result of the findings of the objective, which demonstrated that financial innovations have a positive and significant effect on the financial performance of DT-SACCOs in Kenya, and the conclusion that financial innovations are essential to improving their financial performance, it is recommended that the DT-SACCOs put more effort into enhancing financial innovations.

REFERENCES


