



## **PERFORMANCE OF PRIMARY AGRICULTURAL MARKETING CO-OPERATIVES IN ROMBO DISTRICT TANZANIA: APPLICATION OF FINANCIAL AND NON-FINANCIAL MEASURES**

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### **ABSTRACT**

*Studies on co-operatives have been evaluating performance by considering the financial performance while ignoring the non-financial performance. This traditional approach tends to come up with a bias conclusion. This study aimed at evaluating the performance of the primary Agricultural Marketing Co-operative Societies (AMCOS), by using Balanced Scorecard approach, integrating both financial and non-financial measures. Specifically, the study assessed both no-financial and financial performance of the primary AMCOS; the mean difference between the financial and non-financial performance and the contribution of non-financial performance aspect on financial performance. The study used the balanced scorecard approach by involving five aspects; social, learning, internal business process and financial. Questionnaire was distributed to 334 respondents who are the owners and decision makers of the primary AMCOS. Key Informants Interview was conducted to collect the qualitative data. Data were analysed descriptively to assess the performance while inferential statistics were done using paired T-test and multiple regression analysis to assess the mean differences and relationships. The results show that financial performance in primary AMCOS was found to be average ( $M = 3.3$ ) while non-financial was above average ( $M = 3.9$ ). Indicating that primary AMCOS are doing better in the non-financial aspect than in the financial aspect. The results showed that there was a statistical mean difference in performance scores between the perception on financial and non-financial performance. The study concludes that it is perceived that, primary AMCOS are doing better in nonfinancial performance than in the financial performance. It is however concludes that, both financial and non-financial performance are of the same importance. The study recommends that much effort should be directed to the financial aspect, without impairing the non-financial aspect, so as to balance the situation. Both economic and social performance should not be separated in decision making as emphasised by the Dual Motive theory. The Modified Balanced Scorecard is appropriate for assessing the performance of primary AMCOS.*

**Key word:** Co-operative, Balanced Scorecard, financial performance, non-financial performance

### **1.0 INTRODUCTION**

Co-operative institutions have spread worldwide to solve members' problems including poverty alleviation (Popker, 2016; Sumelius, *et al*, 2015; Ezekiel, 2014). Co-operatives operate under a unique feature by having multiple goals of economic, social needs. They possess dual purpose, meaning that, on the one hand they are business driven by economic incentives and on the other hand they associate with a social purpose (Novkovic, 2012). Novkovic (2012) emphasise that, the strength of co-operative businesses, is in achieving social aims with economic means and balancing the same. The unique feature of possessing both business and social purpose is one the things differentiate a co-operatives and other conventional firms. The dual nature of the co-operative needs a balancing model when dealing with co-operative performance, so that both social and economic aspects to be evaluated. Members' return and continuity should be viewed as at the core of the objectives of the co-operative. A meaningful empirical evaluation of the co-operative's performance should address the dual objective nature of the organisation (Soboh *et al*, 2009).

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Members have ownership role but also have the transactional relationship and responsibility role with their co-operative which contrary to other firms where the owners are not necessarily the users of the services provided by their firm (Marwa, 2014). Co-operative members own the co-operative and the same time patronize it (Rwekaza *et al.*, 2019). This characteristic has an impact on how members evaluate the performance of their co-operative since on the one hand they need financial gains as owners but on the hand members' benefits as members. Any decision in either part, being financial or non-financial, has an impact on the overall members' interests that requires members' ability to evaluate performance (Penget *et al.*, 2020; Liang & Hendrikse, 2013; Nilsson & Hendrikse, 2011). Literature agree that, a co-operative is as a (members) user-owned and (members) user-controlled organization that aims to benefit its (members) user (Soboh, 2009) and therefore, evaluating primary AMCOS as if they are profit oriented firms mislead about the real co-operative's performance. He urged that, there is a need to consider that co-operatives' performance is influenced by organisational characteristics and members objectives.

Some studies on co-operative performance have been focusing mostly on the available financial accounting measures such as return on assets and profit margins, which are commonly used to evaluate investor-owned firms (Bond, 2009; Tilahun, 2007; Azzam and Turner, 1991). They have been assessing the financial performance which is just economic part and leave apart the nonfinancial part which constitutes the social aspect. This means, they assess the performance without considering the views of the members who are both the owners, users and decision makers of co-operative services. Although co-operatives have board members, but yet the financial decision is given by the members during the Annual General Meetings. The repercussion of relying on only financial aspect is that, the co-operative can be reporting a good financial performance while members' value is deteriorating which in long run affects membership growth. On the other hand, there are studies which insist on the use of both financial and non-financial measures. For example, Shamsuddin *et al.*, (2018) used some of the financial measures such as the liquidity, solvency, profitability and non-financial such as customer satisfaction, qualified employees, employee retention and member satisfaction. The study insisted that in measuring the performance of a co-operative aspects related to member benefits should be covered. Mayo (2011) also urged the measures such as member engagement, training and education are very important to be used in measuring the co-operative performance. Therefore, this paper is going to assess the performance basing on the members perceptions and also considering a more inclusive approach through adapting a Balanced Scorecard (BSC). The approach is consistent with the dual objectives of the co-operative form since it covers both financial and non-financial aspects (Muda *et al.*, 2018).

Studies (Norvic 2012; Kaplan and Norton, 2001) recommend a comprehensive approach specifically the BSC when evaluating performance in co-operatives because of its ability to combine both financial and non-financial aspects. There is evidence that co-operatives use all the dimensions available in the BSC framework although they might not have adopted the framework. The dimensions which this study is going to use have been adopted as suggested from the Balanced Scorecard model (Kaplan and Norton, 2001) and the Dual Motive theory (Norvic, 2012) which are summarised as, social, learning, internal business process, members and financial aspect. The first four dimensions are termed as the nonfinancial aspects. Irrespective of the primary AMCOS being small or large, aligning the strategy in those dimensions and assign the priorities can help the co-operatives to have good performance (Cardemil-Katunanic and Shadbolt, 2006). In order to capture the performance in all five aspects, the subjective measures were used instead of the objective measures to distinguish between alternative performances within the aspects (Amene, 2017).

The subjective measurement method is preferred to objective method because it is very difficult to quantify the non-economic performance. Subjective performance measures are the substitute of the objective performance because of the obstacles to small and medium firms like primary AMCOS not revealing the actual performance to the public. Primary AMCOS sometimes have financial statements which are unaudited, hence lack credibility. Furthermore, members are able and willing to provide the performance data subjectively because they will evaluate their primary AMCOS depending on how they perceive their needs are satisfied (Zulkiffli, 2014) and therefore making comparison across the primary AMCOS to be possible (Peng *et al.*, 2020). It is stated by Parnell (1995) that: "The only reality that counts is the perception that people hold about your organisation". Later on, Hind (1999) in supporting Parnell (1995), urged that, since relying on the financial measures such as profit misleads and sometimes obtaining the secondary data is difficult, perception approach is more suitable in assessing member's benefits.

Sigh *et al.*, (2016) conducted a study using the subjective measures which concluded that subjective measures were positively related to the objective measures and subjective measures were reliable across countries studies. Ishak *et al.* (2020) argued that the cooperative performance should evaluated by both financial and nonfinancial measures. The current study extends to use both the perceptions and the financial data obtained from the Audited financial

reports of the primary AMCOS. The study addresses the methodological and theoretical gap regarding performance measurement of primary AMCOS to measure the performance of the primary AMCOS by considering both financial and non-financial aspects and evaluate how the non-financial aspects influence the financial aspect. The study hypothesised that there is no statistical mean difference in perceived performance between the financial and non-financial performance measures. It also hypothesised that non-financial performance does not affect the financial performance of the primary AMCOS. This study has aimed at providing knowledge about the performance of the AMCOS through members' perceptions on both financial and non-financial aspects.

This study is guided by the Dual Motive or Meta -economics approach (Levine, 2006; Lynne, 2006) and the Balanced Scorecard Model (Kaplan and Norton, 2006). The two approaches are used together to complement each other because the first is talking the duality nature and the latter is talking about the need to balance all the financial and non-financial aspects of the organisation. The theory suggests that personal gain and social gain are pursued jointly (economic and social), therefore, in primary AMCOS members personal gain and social gain are inseparable. It needs a bit sacrifice of one once pursuing the other. It emphasises the sacrifice is not about trade-off, rather combining the two lead to higher quality outcome (Novkovic, 2012). The duality of having the economic and social character is one of the uniqueness of the co-operatives and the two are entwined by the co-operative definition. Co-operatives have to balance between the financial and also provide the social value. Separating social performance from the financial performance leads to non-cooperative practices and give the results which are not the full reflection of the co-operative performance.

The Balanced Scorecard is a tool that translates an organisation's mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system (Hill and Powell, 2005). This model was developed by Kaplan and Norton (1992) after realising that relying solely on the financial measures is not suitable for the management of an organisation. Therefore, Kaplan and Norton designed this performance measurement tool in order to capture both financial and non-financial measures in performance measurement (Becsky, 2011; Øehø and Holátová, 2013). Kaplan and Norton did put BSC in terms of perspectives (Kaplan and Norton, 2001). The perspectives which make strategic BSC settings are: financial and non-financial (customer, internal processes, learning and growth). The developer of BSC model insisted on the need to adopt it by considering the nature of the organisation. Therefore, the perspectives are not limited to four rather it depends on the nature of the organisation. Therefore, the study had adopted this model in order to capture all aspects of the primary AMCOS in evaluating performance.

## 2.0 METHODOLOGY

The study was conducted in Rombo District in Kilimanjaro region. Kilimanjaro was selected because of its historical background on AMCOS operations. Rombo district was selected among other Districts in Kilimanjaro purposively because of proportionally, having more active primary AMCOS compared to other Districts. Also, the primary AMCOS in Rombo are engaging directly in coffee business, compared to other districts in Kilimanjaro region. By the time of study all the primary AMCOS in Rombo were active, though with variability. The method used to know the activeness of the co-operative was through using the list of co-operatives from the Assistant Registrar's office which has column indicating 'Active' and 'Dormant'. Also, another criterion was the amount of shares the co-operative has as well as the number of employees. Moreover, these co-operatives were doing business by themselves through going direct to the auction market with little dependency from the Union. The co-operatives which engage direct to the business might be more aware on co-operative operations rather than those waiting for the co-operative Unions to do for them. Having these characteristics, then, it was possible to have reliable information.

The study collected data from 334 respondents, in 8 primary AMCOS through questionnaire which was administered by the researcher. Although the unit of observation was individuals (members), the unit of analysis was the primary AMCOS since the study is interested with the average score that will be taken for each performance aspect at an AMCOS level to determine how the co-operative is performing. Sample size was calculated using the Cochran (1977) formula as discussed by Bartlett, Kotlik and Higgins (2001) and Adam (2020) states that:

$$n_o = \frac{t^2 * s^2}{d^2} \dots \dots \dots (1)$$

- Where t = value for selected alpha level
- s = estimate of standard deviation in the population
- d = acceptable margin of error for mean being estimated

According to the Cochran (1977), the alpha level of 0.5 of the t-value of 1.96 is used for the sample size above 120. Acceptable margin of Error is 3% for the continuous and scaled (Likert scale) data kind of data. Therefore, the true mean of a five scale is within plus or minus 0.15 (5 times 0.03).

$$\text{Variance of a scaled variance } (S) = \frac{\text{number of points on the scale } (5)}{\text{number of standard deviations } (4)} \dots\dots\dots (2)$$

$$= 1.25$$

$$n_o = \frac{1.96^2 * 1.25^2}{5 * 0.03^2} = 266.79 / 0.8 = 334$$

Since there is no fraction respondent the required minimum sample is 267. It was assumed that the respondent rate to be 80%. Therefore, the new sample could be recalculated to 267/0.8 = 334. Hair *et al.* and Tatham (1998) and Williams, Onsmann, and Brown (2010) suggest a rule of thumb of 100 participants and above. Systematic sampling was involved where the first member was picked randomly and then the others were picked using K<sup>th</sup> formula depending on the list of members in a specific AMCOS. Key informants Interview was conducted with 10 key informants selected basing on their experiences on AMCOS operation and coffee business through co-operative channel. The KI was appropriate in order to validate the data from the survey on the perceived performance of the primary AMCOS. The key informants were thoroughly engaged through in-depth interviews.

Data were analysed through descriptive statistics in determining the mean scores of the performance in each aspect. The study by using the suggestion from the Dual Motive theory and Balanced Scorecard on the need to evaluate both financial and non-financial performance in an organisation, it used 10 indicators in social performance, 11 indicators in learning aspect, nine indicators in internal business, eight indicators for member aspect and nine indicators for financial performance (Table 1).

**Table 1: Performance Aspects and their performance metrics**

| Social aspect         | Learning aspect                | Internal business                  | Member aspect                   | Financial                                 |
|-----------------------|--------------------------------|------------------------------------|---------------------------------|---|
| concern for community | fund for training              | obtain credit                      | fetch new market                | price increase                            |
| control their purpose | training for members           | research and development           | members satisfied               | Satisfactory Profit                       |
| use skills            | skilled staff                  | new product development            | inform the general public       | profit compared to capital                |
| promotion             | training for managers          | member receive education           | respond to members needs        | profit compared to sales                  |
| strong solidarity     | training for board             | actively participating in policies | satisfied with services offered | profit compared to assets                 |
| equality              | capacity growth                | obtain professional requirement    | fetch new market                | Sales growth is achieved                  |
| collective interest   | employee satisfied             | Professional mgt                   | members satisfied               | high marketability due to quality produce |
| independent equity    | Employee turnover              | sell all the produces              | inform the general public       | liquidity is satisfactory                 |
| treated fairly        | democratically control capital | buy all members' produces          |                                 | use money efficiently                     |
|                       | Economic participation         |                                    |                                 |   |
|                       | absenteeism                    |                                    |                                 |   |

Likert Scale ranging from very poor/low (1) to very good/high (5) was used to measure the performance. Subjectively, the mean scores for each aspect were determined using the descriptive analysis. The decision rule for the performance using the mean scores were: Mean response of 1-2.49 (below average) is lack of performance; 2.50-3.49 (average) is an average performance and above 3.50-5.00 (above average) is considered as high performance (Aliyu, 2015). Then, using the mean scores from each aspect it was possible to test the mean differences in performance between the performance aspects by using a Paired sample T-test. It was also necessary to assess on how the non-financial aspects influence the financial aspect. This was done through employing the multiple regression where the independent variables were social performance, learning performance, internal business process performance and member aspect. Multiple Regression analysis was conducted to assess the influence of non-financial performance on the financial performance with the given formula as:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e \dots\dots\dots (3)$$

Where: Y = financial performance mean scores  
 X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub> and X<sub>4</sub> = social performance, learning performance, internal business performance and member performance mean scores respectively.

- $a$  = constant or intercept of the equation  
 $b_1...b_4$  = regression coefficients  
 $e$  = error term.

Multicollinearity was tested by Variance Inflation Factor (VIF) where they all were below 5 indicating that there was no coefficient greater than 0.8 among the independent variables hence no multicollinearity identified. In order to enrich the analysis, objective measures were used in assessing the financial performance such as net profit margins, ROI, ROE, liquidity ratio, capital growth and sales growth. The aim was to validate the results from the subjective measures of financial performance.

Reliability of data was conducted in order to assess the internal consistency of the aspects through Cronbach's Alpha and was above 0.7 which is the cut-off point indicating a very strong consistency among aspects (Prajogo and Sohal, 2003). Cronbach's Alpha (Cronbach, 1951) is one of the widely used measures of reliability in the social sciences (Loewenthal and Lewis, 2018; Diedenhofen and Musch, 2016; Bonett and Wright, 2015; Cronbach, 1951). Construct validity was achieved by ensuring reliable literature and theoretical information reviewed. Information was then contrasted with the empirical data generated through the use of the questionnaire. Internal validity was achieved through causal relationship in testing the hypothesis. External validity is also achieved because the findings from this study can be generalised to other primary AMCOS operating in the same kind of business.

### 3.0 FINDINGS AND DISCUSSIONS

#### 3.1 The Mean performance of the primary AMCOS

The results from Table 2 show the performance in five aspects of the primary AMCOS. For the subjective measures, the decision rule of the analysis is that, any mean response of 1-2.49 (below average) are considered as lack of performance; 2.50-3.49 (average) considered average performance and above 3.50-5.00 (above average) considered as high performance (Aliyu, 2015). For the objective measure of the financial performance, the mean, maximum and minimum was used to inform the financial performance of the surveyed AMCOS.

**Table 2: Performance Mean Scores among the Performance Aspects**

| Performance aspect                     | Subjective Performance                 |                |                |  | Std. Deviation | Std. Error<br>Mean | Cronbach<br>alpha |
|--|--|----------------|----------------|--|----------------|--------------------|-------------------|
|  | Mean                                   | Rank           | N              |  |                |                    |                   |
| <b>Non-financial performance (NFP)</b> | <b>3.7883</b>                          | <b>N/A</b>     | <b>334</b>     |  | <b>0.7112</b>  | <b>0.0389</b>      | <b>0.951</b>      |
| Social performance (SP)                | 4.0018                                 | 1              | 334            |  | 0.7340         | 0.0406             | 0.875             |
| Learning performance (LP)              | 3.7210                                 | 3              | 334            |  | 0.8126         | 0.0445             | 0.903             |
| Internal business process (IBP)        | 3.7040                                 | 4              | 334            |  | 0.7662         | 0.0419             | 0.830             |
| Member performance (MP)                | 3.7263                                 | 2              | 334            |  | 0.9156         | 0.0501             | 0.833             |
| <b>Financial performance (FP)</b>      | <b>3.3037</b>                          | <b>5</b>       | <b>334</b>     |  | <b>0.8640</b>  | <b>0.0473</b>      | <b>0.872</b>      |
|  | <b>Objective financial performance</b> |                |                |  |                |                    |                   |
|  | <b>Mean</b>                            | <b>Minimum</b> | <b>Maximum</b> |  | <b>Std</b>     |                    |                   |
| Net profit over sales (%)              | -23.62                                 | -90.24         | 35.72          |  | 40.89          |                    |                   |
| Return on investment (%)               | -4.33                                  | -19.80         | 5.07           |  | 7.53           |                    |                   |
| Return on equity (%)                   | -0.63                                  | -11.65         | 7.99           |  | 7.21           |                    |                   |
| Debt equity ratio (%)                  | -0.05                                  | -2.27          | 1.21           |  | 1.16           |                    |                   |
| Liquidity ratio                        | 1.93                                   | 0.04           | 7.04           |  | 2.65           |                    |                   |
| Capital growth (%)                     | 4.99                                   | -10.43         | 32.93          |  | 13.25          |                    |                   |
| Sales growth (%)                       | 27.95                                  | -8.66          | 110.21         |  | 37.03          |                    |                   |

The non-financial performance shows mean scores of 4.002, 3.721, 3.704 and 3.7263 for social performance (SP), Learning (LP), internal business process (3.704) and member performance (MP) respectively. All scores are above 3.5 indicating that primary AMCOS focus and perform higher in all non-financial aspects at above average which is the threshold proposed by Aliyu (2015). This is contrary to the study done by Tilahun (2007) who found that in the AMCOS studied, all of them were performing below average. The study also found that within the non-financial performance, the social performance scored higher (Mean = 4.0) compared to other non-financial performance which scores the average of 3.70. It indicates that although the primary AMCOS are not performing well financially as evidenced in Table 2, both subjectively and objectively, they are socially benefiting. The findings are validated through an interview with a key informant:

*“we do not have much to offer to our members and community, but the little we have we try.....as we are speaking, we have two students who are in secondary school sponsored by*

*our AMCOS...we feel that this is our role to build members value as well as supporting the community'' (KI, Rombo).*

The findings imply that co-operatives are aware of the social role they play for the members and the community. The results support the Dual Motive Theory that the co-operative should deal with dual nature without separation between the economic and social roles.

Comparably, it is evidenced from the findings that the overall non-financial performance (3.788) is higher than perceived financial performance (3.30) which is just an average performance. This indicates that members perceive their primary AMCOS to focus more on non-financial objectives than financial performance. Therefore, members still have trust on their co-operatives on how they are offering the non-financial benefits. The findings show also that the social performance is the leading aspect indicating that there are many benefits they are getting regardless of the challenges available in the sector. The findings corroborate with Bazaz (2015) study, which found that agricultural co-operatives were doing better in social performance than in economic performance. The findings are supported by the findings from one of the Key Informant:

*“.....Not only that we are benefiting from the price of our coffee, but sometimes we are getting new ideas when we meet in groups...sometimes we are called for training in various areas.....you find some new knowledge and learning how to face knew challenges which are in our areas. Some of our members were even afraid to participate in meetings, or in elections but currently they have been empowered through our co- operative and others now they think of even extending their leadership to the community.”(Interview, Rombo).*

It implies that members currently are appreciating the non-financial benefits from their AMCOS than from financial benefits. This has a long-term focus once is managed properly, since non-financial performance is a good driver of the financial performance in long run. For example, if members are getting empowered while in their co-operatives, then it is expected in long run to have strong co-operatives.

The subjective results on the financial performance concur with the objective measures whereby it is shown that sales growth, capital growth and liquidity level are reporting the positive trend. However, the profit ratios are showing a negative mean average which was due to some primary AMCOS to have previous losses carried forward over years. Having members who perceive their primary AMCOS performing well in non-financial aspects than in financial performance, it means they are still have hope to benefit from their primary AMCOS. Therefore, any improvement on the financial aspect will lead to the vibrant primary AMCOS. The results justify the need to assess the primary AMCOS holistically as the evidence in this study is showing, that members still perceive their institutions as performing good in other aspects, that could not be captured using only financial indicators.

**Table 3: Mean Difference between Performance Aspects in AMCOS**

|          | Paired Samples Test |                |                 |   |         |         |     |                 |
|----------|---------------------|----------------|-----------------|---|---------|---------|-----|-----------------|
|          | Paired Differences  |                |                 | 95% Confidence Interval of the Difference |         | t       | df  | Sig. (2-tailed) |
|          | Mean                | Std. Deviation | Std. Error Mean | Lower                                     | Upper   |         |     |                 |
| SP----LP | 0.2808              | 0.7116         | 0.0390          | 0.2042                                    | 0.3574  | 7.211   | 333 | 0.000           |
| SP---IBP | 0.2979              | 0.6094         | 0.0333          | 0.2323                                    | 0.3635  | 8.933   | 333 | 0.000           |
| SP----MP | 0.2754              | 0.7582         | 0.0415          | 0.1938                                    | 0.3571  | 6.640   | 333 | 0.000           |
| SP----FP | 0.6980              | 0.8757         | 0.0479          | 0.6038                                    | 0.7923  | 14.568  | 333 | 0.000           |
| LP---IBP | 0.0171              | 0.5344         | 0.0292          | -0.0404                                   | 0.0746  | 0.584   | 333 | 0.559           |
| LP---MP  | -0.0053             | 0.5449         | 0.0298          | -0.0640                                   | 0.0533  | -0.179  | 333 | 0.858           |
| LP----FP | 0.4173              | 0.6520         | 0.0357          | 0.34711                                   | 0.4875  | 11.698  | 333 | 0.000           |
| IBP--MP  | -0.0224             | 0.6076         | 0.0332          | -0.0878                                   | 0.0429  | -0.674  | 333 | 0.501           |
| IBP---FP | 0.4002              | 0.6886         | 0.0377          | 0.3261                                    | 0.4743  | 10.621  | 333 | 0.000           |
| MP---FP  | 0.4226              | 0.7241         | 0.0396          | 0.3447                                    | 0.5005  | 10.667  | 333 | 0.000           |
| FP--NFP  | -0.4845             | 0.6303         | 0.0345          | -0.5524                                   | -0.4167 | -14.049 | 333 | 0.000           |

SP-Social performance; LP-Learning performance; IBP-Internal business process; MP-Member performance

After having the mean scores of the performance, there was a need to find out whether there is a statistical mean difference between the performances among the aspects. T-test was conducted in order to assess the mean difference

among the performance aspects in AMCOS. The results in Table 3 indicate that there is statistical mean difference between the financial performance and Non-financial performance ( $t = 14.049$ ;  $p < 0.05$ ) indicating that the difference which has been evidenced from Table 3 above is proved to be statistically significant different. The implication here is that the AMCOS are focusing more in no-financial aspects than on the financial aspect. This is not also good practice because when dealing with dual aspects in co-operative there must be a balance between the two. The results are failing to support the dual motive theory by relying mostly on the nonfinancial aspect especially in the social aspect. Balancing between the financial and non-financial performance is inevitable and therefore, efforts should be put to both aspects without trade-off.

Findings also show that there is no statistically significant mean difference between learning aspect performance and internal business aspect performance ( $t = 0.584$ ;  $p < 0.05$ ); learning aspect performance and member aspect performance ( $t = -0.179$ ;  $p < 0.05$ ); internal business performance and member aspect performance ( $t = -0.674$ ;  $p < 0.05$ ). It means the primary AMCOS are more less the same performing in the mentioned three aspects. The three aspects, learning, internal business and members are considered to be balanced in the primary AMCOS which is good practice for the institution. However, they should go together with the financial performance and social performance. Furthermore, there is a statistically significant mean difference between the financial aspect performance and social performance ( $t = 14.57$ ,  $p < 0.05$ ); learning aspect performance ( $t = 11.70$ ,  $p < 0.05$ ); internal business performance ( $t = 10.67$ ,  $p < 0.05$ ) and member aspect performance ( $t = 10.67$ ,  $p < 0.05$ ). These inferential findings are supported by the descriptive findings from Table 3 which shows that all the non-financial aspects scored higher means for social ( $M = 4.00$ ), learning ( $M = 3.72$ ), internal business ( $M = 3.70$ ) and customer ( $M = 3.73$ ) compared to the financial performance ( $M = 3.30$ ).

### 5.5.2 Effect of non-financial performance on the financial performance

In order to assess the effect of the non-financial performance on the financial aspect, the multiple regression was conducted where the four non-financial aspects were the independent variable with their mean scores and financial performance as the dependent variable with its mean scores. Results in Table 4 shows the adjusted R square value of 0.544 indicates that, 54.4% of variation in the dependent variable (Financial performance) was as a result of the independent variables (member performance, social performance, internal business process, learning performance). This result shows that, the non-financial performance has a large contribution in the financial performance.

It implies that, in order for the primary AMCOS to perform well financially, it must invest a lot in the non-financial aspects in order to work as a driving force towards financial performance. The results disagree with the other studies (Muda *et al.*, 2018) which found non-financial aspect to have no significant effect to the financial aspect in terms of market price. However, the study is supported by Hadizadeh, Bouzarjomehri, Shayan and Novghani (2015) who claimed that, there is positive influence between the social performance and financial performance. It is also supporting the Balanced Scorecard model which assumes the influence of the non-financial aspects to the financial aspects.

The findings in Table 4 show a significant level  $p < 0.001$ , therefore, the F-statistics F-statistic is large enough to indicate that the model concerning the non-financial performance (member performance, social performance, internal business process, learning performance) and financial performance in AMCOS is highly fitted.

**Table 4: Contribution of Non-financial Performance Aspects on Financial Performance**

| Model                     | Unstandardized Coefficients |            | Standardized Coefficients |        |       | Collinearity statistics |       |
|---------------------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------|-------|
|                           | B                           | Std. Error | Beta                      | t      | Sig.  | Tolerance               | VIF   |
| 1 (Constant)              | 0.484                       | 0.189      |                           | 2.567  | 0.011 | 0.301                   | 3.327 |
| Social performance        | -0.157                      | 0.060      | -0.133                    | -2.604 | 0.010 | 0.530                   | 1.887 |
| internal business process | 0.295                       | 0.076      | 0.262                     | 3.890  | 0.000 | 0.306                   | 3.269 |
| learning performance      | 0.391                       | 0.074      | 0.368                     | 5.275  | 0.000 | 0.285                   | 3.510 |
| member performance        | 0.241                       | 0.064      | 0.256                     | 3.763  | 0.000 | 0.301                   | 3.327 |
| R <sup>2</sup>            | 0.544; ANOVA: F             |            |                           |        |       |                         |       |
|                           | 98.139; Sig.                |            | 0.0000                    |        |       |                         |       |

a. Dependent Variable: financial performance

It shows t-values of social performance, internal business, learning and member performance by having 2.567, -2.604, 3.275, 5.275 and 3.763 respectively against the financial performance, that are greater than the critical value (1.96) at a significant level  $p < 0.05$ . Therefore, the hypothesis which states that non-financial performance has no impact on financial performance in AMCOS is rejected and therefore support that, non-financial performance has impact on the financial performance. Then non-financial aspect performance has contribution on the financial

performance. Results show that learning contribute much on the financial performance ( $B = 0.391$ ,  $p < 0.05$ ) compared to other aspects. However, the social performance has a negative contribution to the financial performance. This is against the dual motive theory because it is indicating that the co-operatives have failed to balance the two. Also, it is against the BSC model because the aim of the model is to insist on the balancing of organisation resources to have a balancing performance. This is consistent with other studies (Amene, 2017; Mayo, 2011b) that recommend the co-operatives to engage on learning (training, skills etc) aspects in order for the co-operative to succeed.

## 5. CONCLUSION AND RECOMMENDATIONS

The aim of this study was to evaluate the performance of primary AMCOS. The study used both financial and non-financial metrics measuring the performance of primary AMCOS. The study used a Dual Motive theory which emphasise on the balancing between the economic and social performance without trade-off between the two and the Balanced Scorecard approach which insists the balancing of financial and non-financial aspects in assessing the performance of the organisation. The study assesses the performance of five aspects: social, financial, learning, internal business process. The findings indicate the average financial performance and above average in non-financial performance. Therefore, it indicates that AMCOS are doing better in non-financial aspects than in the financial aspect. Furthermore, the results showed that there was statistical mean difference in performance scores between the financial and non-financial performance. The study concludes that, although primary AMCOS might have low financial performance, but members can still be satisfied with other aspects and this can be known when a comprehensive approach is used to assess the performance. The study recommends that much efforts should be directed to the financial aspect, but without impairing the non-financial aspect, so as to balance the situation and hence to comply with the duality nature of the co-operative of socio-economic. This can be done through ensuring that they get good price for their products, utilising the assets they have properly to generate income and increase production so as to increase the sales volume.

The findings also show that there is a positive relationship among the non-financial performance aspects. This also indicates that there is no trade-off between the non-financial aspects that means, all the non-financial aspect should be considered concurrently. However, social performance aspect has reported the negative contribution to the financial aspect; therefore, the study recommends that a careful plan should be done to improve social performance without impairing the financial performance as emphasised by the Dual Motive theory. The study also is recommending the Modified Balanced Scorecard to be used in assessing the primary AMCOS performance.

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