

Systematic Reviews on Measures of Agricultural Marketing Cooperatives Performance

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Abstract

Agricultural marketing cooperative (AMC) is a popular and widely expanded cooperative society over the world. It is established and performing business to provide goods and services to farmer members. It is identified that there are arguments in measuring the performance of AMC. Therefore, the objective of this review study is to ascertain measures of agricultural cooperative performance through critical review of scholarly articles. For this review research different array of strategies and procedures were used namely, developing research question to be addressed and setting the inclusion and exclusion criteria. Literatures were searched and researched iteratively from different sources mainly google scholar, research gate, web of Science and CORE research databases. 105 articles were identified from which 41 articles were selected through thoroughly evaluation of their relevance to the review topic; the article topic, abstract, main findings and discussion as well as conclusion were used as criteria of inclusion or exclusion of identified article to or from the review. Based on the review study it was found that control power, commitment, participation and loyalty of members and as well as directors bargaining power and accountability, management competency and employee engagement and board-management relationships are used to measure management performance of agricultural cooperative. Furthermore, the review study established that aggregate farm input supply in variety, quantity and quality over time including collective volume and diversity of farm output marketing with fair price are used to measure business performance of cooperative. In line with this the study also determined that the conventional financial ratios namely liquidity ratios, leverage ratios and profitability ratios used to measure financial stability of cooperative with relatively lower than the industry standards being the cooperative is not-for profit business. Besides, earning per share and economic value added as contemporary financial ratios are recommended to be used as financial performance measures of AMC to indicate cooperative value economic stability of the cooperative in today's dynamic market.

Keywords: cooperative, agricultural cooperatives, management performance, business performance, financial performance.

1. Introduction

Agricultural marketing cooperative (AMC) is established, owned, controlled and used by farmers for agricultural marketing services. AMCs play a significant role in farm economic sustainability through essentially serving members in agricultural input supply, merchandise feed and food grains (Kifle, *et al*,

2021; Ferraz *et al*, 2018). Furthermore, AMC serving farm producer members in delivering marketing services so as creating value to the members and linking them with agricultural marketing (Zhang *et al*, 2021; Giagnocavo *et al*, 2018). This meet socio-economic problem of member and cumulatively contribute to agricultural economy (Candemir *et al*, 2021).

In order to benefit members on the short-and long-term AMC perform business through efficiently participating in the agricultural market channel. In this regard, the governance and management of the cooperative is crucially indispensable to participate in the marketing (Lucas-Martínez *et al*, 2020; Franken and Cook, 2017). Cooperative leadership and management are measures of the marketing participation and then performance of agricultural marketing for it improves member commitment and determining market decision and bargaining of market prices (Malaisamy A. 2021; Zhang *et al*, 2021; Hao, 2018).

Cooperative which is with good management can mobilize resources and manage capital structure. Definitely, capital structure of the cooperative is essential for marketing agricultural products of member consistently (Wang, 2016). Even though cooperative is not-for-profit it makes sure that it generates profit of at least minimum margin for serving members and then ensure its development in long-term (Al-Hamouli *et al*, 2021). According to some study findings, this affects the financial performance of agricultural cooperative indeed, it determines profitability and liquidity status of the cooperative thereby influence cooperative values to determine marketing participation (Omneya *et al*, 2021; Dendup and Aditto, 2020).

From these reviewed scholars' findings and views on measures of AMC performance were focused on the conventional financial performance and marketing strategies. However, cooperatives are service motives so as using management efforts to sustain the cooperative with low profit margin and improving AMC performance for maintain longevity of the cooperative. Consequently, there is the gap of consensus on the indicators used to measure performances of cooperative in general and agricultural cooperative in particular.

To address this study gap, the basic question to be answered is what are the measures of AMC performances. Therefore, the purpose of this review study is to ascertain what has been studied and published regarding AMC performance. Besides, to identify and recommend measures of agricultural cooperatives performance through critical review of scholarly articles. consequently, synthesizing logically, consolidating and strengthening the knowledge on the indicators used for measuring performance of AMC.

2. Theoretical framework

Cooperative societies are a special kind enterprise combine economic and social objectives business operations. This is because of its service motive nature business owned and primarily used by its member indeed, they perform business effectively and efficiently for member benefit (Buang, 2020; Giagnocavo *et al*, 2018). Cooperative retains its identity of self-help enterprise and mutual characteristics to date and play an important role in the global economy irrespective of their forms of business and level of development (Mamdouh and Ahrouch, 2022; Karakas, 2019; Franken and Cook, 2017; Othman *et al*, 2016).

Cooperative societies are tracking to success through delivering member driven services, practicing member democratic management and concern for social services (Debebe and Mesfin, 2020; Karakas, 2019; Shamsuddin *et al*, 2018). This is to distribute goods and deliver services to member sustainably and as well as survive in the competitive marketing environment through overcoming market imperfections (Candemir and Duvaleix, 2021; Shumeta and D'Haese, 2016).

AMC is a form of cooperative established by small holder farmers with mutual interest to solve their common problems through collective efforts and ultimately attaining economic and social empowerment in

agricultural marketing (Zhang *et al*, 2021; Ferraz *et al*, 2018; Delelegnet *al*, 2017). The purpose of AMC is to improve the living conditions of farming communities through enhancing farming operation and consolidate the economic role of the producers in agricultural marketing (Debebe and Mesfin, 2020; Grashuis and Su, 2018). AMC contributed to community development in the rural area and also linking rural and urban as producers and consumers so as contributing to agricultural sector development by economizing transaction costs (Kifle *et al*, 2021; Tumenta *et al*, 2021).

Cooperative societies theories and practices have illustrating that cooperative are not-for-profit business however, financial performance of cooperative in general and AMC in particular is vital. This is for guaranteeing the endurance of the cooperative in the market (Al-Hamouliet *al*, 2021; Candemir *et al*, 2021; Golovina, 2019; Gianocanoet *al*, 2018). As a result, AMC is developing its capital and assets by mobilizing share capita and generating revenue from business operation at least with lower margin (Amondi, 2020; Debela and Kerim, 2020; Zakaria *et al*, 2019). It is definite that for serving member and sustain its financial position AMC are engaging in agricultural marketing value chain, agricultural cooperative create value to their members. This value creation for members of agricultural cooperative is for improving business performance in satisfying member-owners (Debebe and Mesfine, 2020; Ferraz *et al*, 2018; Masuku *et al*, 2016).

The business performance of AMC is about their effectiveness in supplying and distributing farm input consistently. This is contributing for farm production improvement of members (Golovina *et al*, 2019; Grashuis and Su, 2018; Delelegn *et al*, 2017). Business performance of AMC is also a proxy for sales of members' farm products with appropriate price by reinforcing their bargaining power in the market and adding value on the member products (Batzios, *et al*, 2021; Kifle *et al*, 2021; Malaisamy, 2021; Dendup and Aditto, 2020; van Caenegem *et al*, 2017). It is outlined that AMC is insightful to excel in member service, besides outreaching its service to community for it is socially embedded in the people based business (Debebe and Mesfin, 2020; Benos *et al*, 2018).

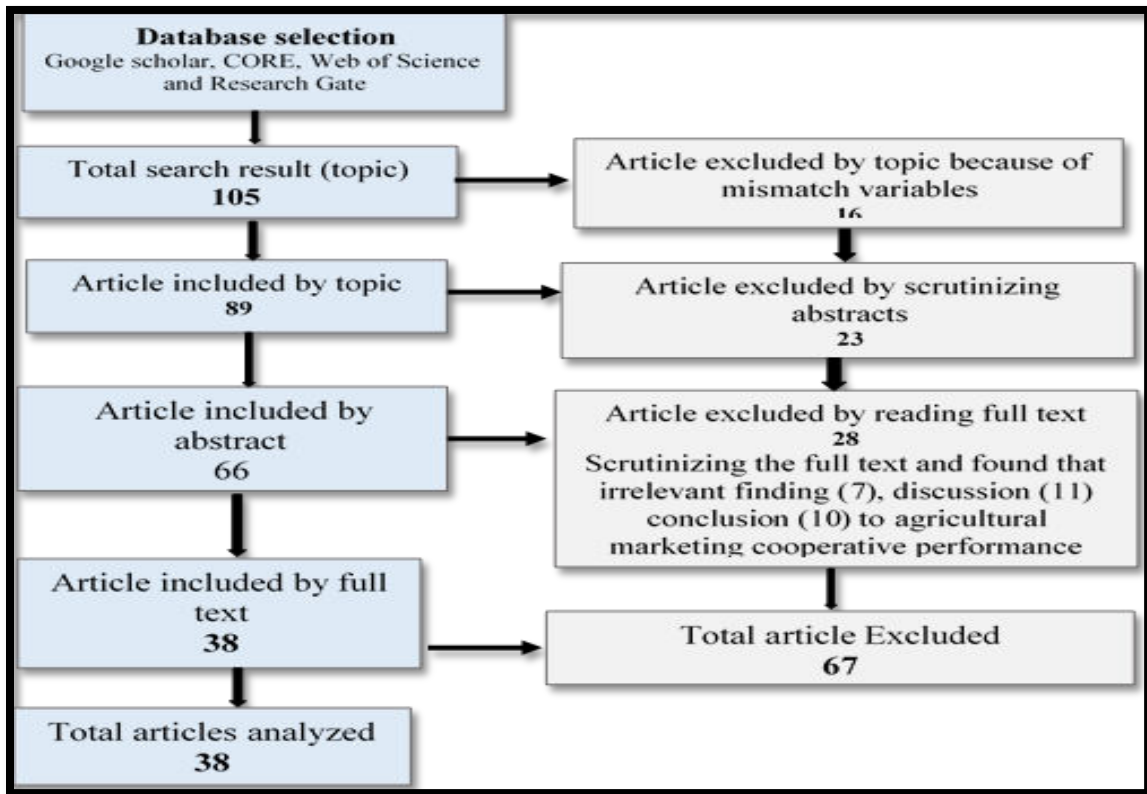
In order to improve business performance of agricultural cooperative, its leadership and management is indispensable contributor. Performance of agricultural cooperative in assigning competent management and maintaining board-executive relationship to run member based operation is crucially important (Batzioset *al*, 2021; Baung, 2020; Grashius and Su, 2018; Rakhal, 2017). Besides, aligning cooperative policy and governance on one hand and coinciding business operation with member need are one of measure of management performance of agricultural cooperative (Franken and Coock, 2017; van Caenegemet *al*, 2017; Othman *et al*, 2016).

Furthermore, management performance of AMC is determined by size of membership, participation of member in their cooperative affairs and commitment to take responsibility and also in using the services are essential issues of management performance of agricultural cooperative (Rwekaza and Anania 2020; Grashuis and Su, 2018; Hao, 2018). Management performance of agricultural cooperative also measured by management ability to integrate internal process of business operation with members and customer and aligning financial resources with the business operation to make cooperative effective and reassuring members' benefit (Mamdouh and Ahrouch, 2022; Shirima *et al*, 2020).

3. Research Methods

For undertaking this review research, different array of strategies and procedures were used for identifying, recording, understanding, and summarizing the information from various research papers pertinent to the topic of review study. Accordingly, the review methods and procedures developed by Ramdhaniet *al* (2014) was used for it initiated with developing research question to be addressed and setting the inclusion and exclusion criteria of identified articles for the review. Besides, review article methods and strategies by Paul and Criado (2020) was followed to address the framed research question of the review research.

The literatures which coinciding with the review study were systematically searched and researched iteratively from different sources mainly google scholar, research gate, web of Science and CORE research databases. This is followed scientific review steps by Paul and Criado (2020); Virginia and Spraggon (2018); Ramdhani *et al*, (2014). In order to select the best fitting articles, the abstracts, the conclusion and the main findings of the searched literatures were scanned. The selected articles for review were included in to this study were those which are published from 2016 and to-date for including the recent literature and reducing the burden of screening. Accordingly, articles were selected through thoroughly evaluation of their relevance to the review topic the article topic, abstract, main findings and discussion as well as conclusion were used as criteria of inclusion or exclusion of identified article to or from the review. Furthermore, grounded theory, as a method of rigorously reviewing literature by Wolfswinkelet *al* (2013) and an end-to-end process of writing literature review research by Virginia and Martin (2018) were used during the review, analysis and presentation stage. This review process consolidated in to stages of define, search, selection, analysis and presentation stages. Consequently, this review research explored the review research topic and framing research question to be answered which reflected recent question and knowledge in the field of cooperative studies. Based on the study topic and question the researchers searched for the literature by identifying and screening the relevant articles. The review study was used assessment and selection method to include the most relevant literatures in to review using the progressive multi-stage scrutinizing the abstract, full-text and conclusion. Moreover, the review study was analyzed the carefully selected set of separate articles by focused on and critically thinking of the review study objective for extracting the relevant data. The extracted data were organized and presented according to the pattern of the subtopic of the study developed which followed the logical structure and arguments. The process of literature selection from the identified database is outlined as in figure 1.



Source: Researchers sketch (2022) based on literature review.

Figure 1 Process of literature selection from the identified database

Regarding sampling description for sampling the suitable articles for the review the search was conducted using a keyword search. Accordingly, 105 articles were identified and among these articles 41 articles were determined as suitable as sample for the review. While 46 articles were discarded from sample for they did not undoubtedly address AMC performance and they were not built on agricultural cooperative performance measures. These sampled articles were assumed legitimate to be identified as sample articles. Consequently, final sample for this review study consisted 41 articles. Besides, the authors have also tried to acknowledge central and influential conceptual papers for they used outlined the conceptual framework of AMC. All the sample articles and the articles and other cited sources are included in the reference lists.

In the analysis of the sample articles, the common approach for literature review were used such as carefully read of the selected articles and assessment thematic codes. The used thematic codes were title of the article, publication year; area of contribution (business, management and financial performance); key findings of the article regarding the theme of the review study.

4. Results and discussion

4.1. Management performance

AMC established by farmer members to address the socio-economic interest of members through effective management of the society to efficiently provide needed services to member-owners. Therefore, identifying measures of agricultural cooperative management performance is found to be important. Consequently, with the purpose of identifying the indicators of management performance of agricultural cooperative, 13 articles are selected and reviewed.

Member of AMC are the owners and users of the goods and services from the cooperative and hence, Lucas-Mart'nezet *al* (2020); Ferrazet *al*, (2018) noted member commitment to participate; controlling and evaluating the operation, delegating leaders, and financing and loyal to the cooperative are measures for management performance with respect to members (.These are according to Rwekaza and Anania (2020); Buang (2020); Hao (2018); Franken and Cook, (2017) the vested measure of management performance

Scholars indicated that board of director's capability in setting direction and goal; making decision; retaining members and maintaining capable management and employees are decisive indicators of management performance (Tumenta *et al* 2021; Buang, 2020; Mamdouh and Ahrouch, 2022). Besides, potential accountabilities of directors and managers' relations and employee engagement and investment in community services are determining management of AMC (Shamsuddin *et al*, 2018; Rakhal, 2017; Franken and Cook, 2017; Othmanet *al*,2016) for retaining efficiency and effectiveness of AMC. Furthermore, regain bargaining power collectively for bilateral agreements in purchasing and selling of member need products/service are essential indicators of AMC management performance (Zhang *et al*, 2021; Buang, 2020; Shamsuddinet *al*, 2018).

Truly, AMC management creating market linkage for aggregate farm input purchase and collectively sell members' product. For this leaders' capability for bargaining and retaining competent employees are decisive factors to take the advantage of price of price to be sold and cost of supplies through negotiating power (Batzioset *al*, 2021; Malaisamy, 2021; Zhanget *al*, 2021). As a result, it is useful for balancing unequal market power in agricultural marketing in benefiting members.

These reviewed cooperative management performance measures are summarized in to three area of management function as of member related, leadership and marketing related indicators and presented in table 1 below.

Table 1. Management performance indicators of agricultural cooperative

| Categories | Indicators | References |
|-----------------------------|---------------------------------|--|
| Member related measures | Total member | Franken and Cook, 2017 |
| | Member control power | Ferraz <i>etal</i> , 2018 |
| | Member loyalty | Hao, 2018 |
| | Members participation | Buang, 2020 |
| | Member commitment | Lucas-Martínez <i>et al</i> , 2020 Rwekaza and Anania, 2020 |
| Leadership related measures | Setting goal and direction | |
| | Decision making | Othman <i>et al</i> , 2016 |
| | Management competence | Franken and Cook, 2017 |
| | Board-manager relations | Rakhal, 2017 |
| | Accountabilities | Shamsuddin <i>et al</i> , 2018 |
| | Bargaining power | Buang, 2020 |
| | Member retention | Tumenta <i>et al</i> , 2021 |
| Market linkage | Employee engagement | Zhang <i>et al</i> , 2021 |
| | Maintaining capable employees | Mamdouh and Ahrouch, 2022 |
| | Investing in community services | |
| | Direct aggregate purchase | Batzios <i>et al</i> , 2021 |
| Aggregate sell | Zhang <i>et al</i> , 2021 | |
| Reducing transaction costs | | |

The results of this empirical review studies reveal that member commitment, participation, control and loyalty are measures of management performance of AMC with respect to members. Likewise, leaders, managers and employees' competence, accountability, bargaining power and engagement are measures of agricultural cooperative performance. Besides, creating and maintaining market linkage for aggregate farm input and output marketing and reduction of marketing transaction cost are indicators of management performance of agricultural cooperative.

4.2. Business performance

AMC existence to serve the small holder farmers through marketing operation for which business performance status of the cooperative required to be measured for ensuring if the member needs are addressed. 12 empirical literatures identified and reviewed to indicate the measures of business performance of agricultural cooperative consistently.

Business growth of the cooperative over period of time is the indicator of business performance of agricultural cooperative (Golovina *et al*, 2019; Masuku *et al*, 2016). From this perspective empirical findings indicated that business performance of AMC is assessed using the volume of agricultural input and output marketing (Ferraz *et al*, 2018; Zakaria *et al*, 2019; Debebe and Mesfin, 2020, Candemiret *et al*, 2021). Moreover, according to Kifle, *et al*, (2021); Golovina *et al*, (2019); Benoset *et al*, (2018); Ferraz *et al*, (2018); Shumeta and

D'Haese, (2016) volume of farm outputs collected from members and channelize through market value chain is indicators of business performance of AMC.

From these empirical evidence of key business performance indicators, AMC farm input supply performance is measured with average annual changes in gross supplies of members needs by the cooperative is used to measure its growth in supply products for members. This is used to classify individual cooperatives into low- or high-supply performance groups which is analyzed using a formula:

$$AGSu = \frac{LYSupply - FYSupply}{N(FYSupply)} * 100$$

Where:

AGSu is Average Growth Supply of farm inputs in percent

LY supply: last observed year supply

FY supply: first year observed year supply

N: number of observed year

Regarding farm output marketing AMC is evaluated based on average annual changes in gross sales of members produces by the cooperative is used to measure it growth in sale of members' products. This is also used to classify individual cooperatives into low- or high-sale performance groups. The product marketing performance of AMC analyzed using formula:

$$AGSa = \frac{LYsale - FYsale}{N(FYsale)} * 100$$

Where:

AGSa: Average Growth Sale of farm output percent

LY sale: last observed year sale

FY sale: first year observed year sale

N: number of observed year

Cooperative is service motive so as it is cost effective in business hence, it expected to have concern for price of product sold and cost of supplies. In this regard, the AMC is supplying farm input with lower than market cost and collect members farm products with higher than market price (Kifle, *et al*, 2021; Malaisamy, 2021; Dendup and Aditto, 2020; Shirimaet *al*, 2020; Golovina *et al*, 2019; Grashuis and Su, 2018).

Empirical evidences also indicated that size of market share occupied by the AMC is one of key indicator of business performance and measuring firm value. Market share that is occupied by a farmers' cooperative is used to measure its business performance and also used to compare one AMC with other cooperative in the market (Batziomet *al*, 2021; Kifle, *et al*, 2021; Benoset *al*, 2018). This is calculated as in the following formula

$$AMSG = \frac{LYmarketshare - FYmarketshare}{N(FYmarketshare)} * 100$$

Where

AMSG: Average Market Share Growth in percentage

LY: last observed year market share

FY: first year observed year market share

N: number of observed year

All these reviewed empirical studies disclose that the business performances of AMC are measured in terms of the business transaction making in serving members. This includes the increased volume of agriculture

input supplied and farm output marketing in benefiting members. It is also measured by cost of supplies and price of products marketed by AMC in relation to market. Further more, AMC business performance measured in line with the market share (supply and sale) it obtained in agricultural marketing in its operational area.

4.3. Financial performance

Financial benefit of cooperative is economic view that farmers involve themselves in collective action through AMC. However, there is argument among the scholars regarding measures of financial performance in cooperative. Therefore, 13 articles were selected to review on how financial performance of cooperative measured.

Even if cooperatives are not derived to maximize profit, financial growth determine the success and long-term stability of the cooperatives (Al-Hamouli *et al*, 2021; Debela and Kerima, 2020; Shamsuddin; *et al*, 2018). Consequently, empirical studies indicated that AMC used conventional and as well as contemporary financial ratios to evaluate its financial performance (Ngamjan and Buranasiri, 2020; Cheng and Katchova, 2019; Singh *et al*, 2019; Wang, 2016).

This review studies indicated that liquidity ratio such as Current ratio and quick ratios is used as indicator of financial wellbeing of cooperative societies (Cheng and Katchova, 2019; Shamsuddin *et al*, 2018; Wang, 2016). These ratios are used to indicate the extent to which member equity is held in fixed assets as compared to debt capital and indicate the solvency and readiness of cooperative to cover its liabilities adequately consequently improving firm value of the society (Al-Hamouli *et al*, 2021; Debela and Kerima, 2020; Ngamjan and Buranasiri, 2020; Singh *et al*, 2019).

Besides, studies indicated leverage ratios more importantly debt to equity and ratio of fixed assets and member equity are used to measure AMC financial performance (Amondi, 2020; Debela and Kerima, 2020; Kenkel, 2016; Wang, 2016). The rationale of considering this ratio for AMC is it indicates asset of cooperative claimed by outside interest and to indicate the proportion of assets that are financed with debt of both short- and long-term (Omneya *et al*, 2021; Cheng and Katchova, 2019; Amondi, 2020; Shamsuddin *et al*, 2018)

According to review study, profitability ratios are used to measure the financial performance of cooperatives particularly AMC (Mekonnen, 2021; Omneya *et al*, 2021). These profitability ratios used to evaluate financial performance of cooperative are return on asset (ROA), return on equity (ROE) and profitability to sales (Singh *et al*, 2019; Shamsuddin *et al*, 2018; K). These indicators used to evaluate how AMC is efficient and productive to generate profits within its purpose for sustaining the business as of its doctrine.

In addition to the conventional measures of financial performance, economic value added (EVA) as cooperative value and earning per share (EPS) as part of members' financial benefit are the contemporary measure of financial performance of cooperative (Khiari, 2021; Omneya *et al*, 2021). EVA and EPS as part of cooperative value and part of profitability ratio used to assess financial performance of AMC for measuring surplus value created by cooperative in its existing environment so as evaluate the financial status of AMC (Debela and Karima, 2020; Kenkel, 2016). According to Figari *et al*, (2021); Khiari, (2021). These are used to indicate financial ability and also have impact on ROA and ROE

From all these financial performance empirical review findings, financial performance of cooperative is the overall financial well-being that indicates the extent to which it utilizes its resources to create revenue and value for its member-owners. The key financial performance indicators (KFPI), the ratios, measures and indicators to evaluate the status of AMC are summarized as in the table 2 below.

Table 2. Financial performance indicators of agricultural cooperative

| KFPI | Ratios | Measures | Indicator | References |
|-------------------|-------------------------------|--|---|--|
| Liquidity | Current ratio | $\frac{\text{Total Current Asset}}{\text{Total Current Debt}}$ | Indicates the short term Solvency of cooperative | Al-Hamouliet <i>al</i> , 2021 Debela and Kerima, 2020 Ngamjan and Buranasiri, 2020 |
| | Quick ratio | $\frac{\text{Current Asset} - \text{Inventory}}{\text{Current Liability}}$ | Short term debt paying ability of cooperative without selling inventory | Cheng and Katchova, 2019 Shamsuddin <i>et al</i> , 2018 |
| Leverage | Debt to Equity ratio | $\frac{\text{Total Debt}}{\text{Total Equity}}$ | Indicate the cooperative financing for amount of equity provided by its members | Omneyaet <i>al</i> , 2021 Cheng and Katchova, 2019 Amondi, 2020 |
| | Debt to asset ratio | $\frac{\text{Total Debt}}{\text{Asset}}$ | Indicating asset of cooperative claimed by outside interest | Debela and Karima, 2020 Shamsuddin <i>et al</i> , 2018 Kenkel, 2016 |
| | Fixed asset to equity | $\frac{\text{Fixed Asset}}{\text{Members Equity}}$ | Indicate the asset built by cooperative through equity | Wang, 2016 |
| Profitability | ROA | $\frac{\text{Net Margin}}{\text{Total Average Asset}} * 100$ | | |
| | ROE | $\frac{\text{Net Margin}}{\text{Total Net Worth}} * 100$ | Indicates return of cooperative invested capital and managerial efficiency | Khiari, 2021 Mekonnen, 2021 Omneyaet <i>al</i> , 2021 Singh <i>et al</i> , 2019 Kenkel, 2016 |
| | Profitability to Sales | $\frac{\text{Net Margin}}{\text{Total Annual Sale}} * 100$ | | |
| | Earnings per share (EPS) | $\frac{\text{Net income available to shareholder}}{\text{No. shares outstanding}} * 100$ | | |
| | Patronage refund payout ratio | $\frac{\text{Partonage Refund}}{\text{Earning}} * 100$ | | |
| Cooperative value | EVA | $(\text{Rate of return} - \text{cost of capital}) * \text{capital}$ | | |

This intended to summarize the measures of financial performance of cooperative. As a result, conventional financial ratios with lower than investor owned firm benchmark together with the contemporary financial indicators namely EVA and EPS, constituent firm value to ensure the sustainability of cooperative in service delivery and economic value of the cooperative.

From all the review of AMC performance measures the authors developed AMC performance framework which indicates the interrelationship of the AMC performance themes of the review as presented in the following figure 2 below.

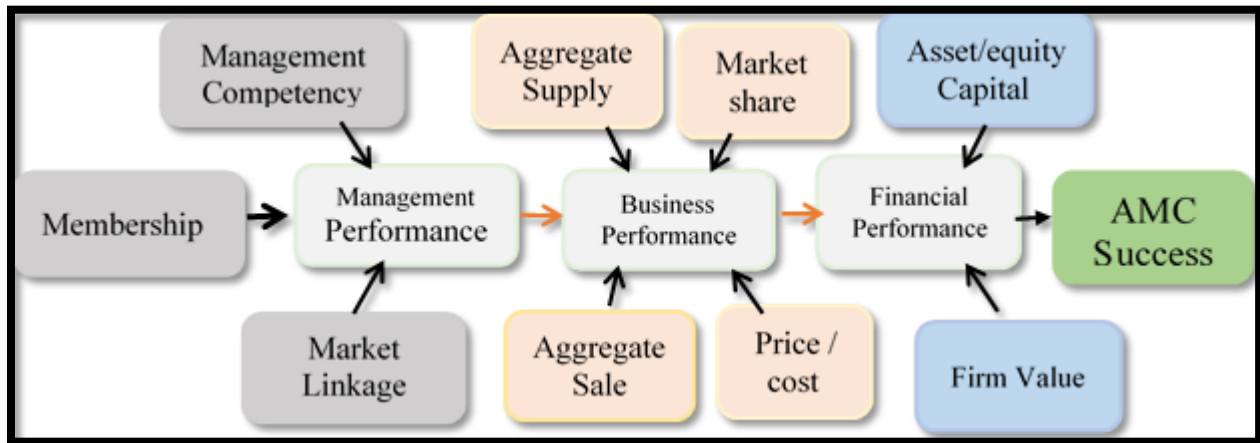


Figure 2 Agricultural cooperative performance framework

This AMC performance model illustrates that the management performance of the cooperative which is measured in terms of membership, management competency and creating market linkage determines business performance of the cooperatives. The business performance of AMC which measured through farm input supply and farm output marketing volume on its turn influence financial performance of AMC. Even though cooperatives are service motive business model, financial capability of AMC is indispensable to create asset and firm value which further determines its success to ensure its long-term stability in today's dynamic market. Therefore, it is certain that measuring performance of cooperative with respect to its management, business and financial status are indispensable.

5. Conclusion and recommendation

5.1. Conclusion

This study was intended to review the measures of cooperative performance with especial emphasis on AMC to which attention is given for management, business and financial performance indicators. Consequently, based on the review study the following conclusions were made.

The existence of cooperative is relying on the membership, leader and paid management and employee of the cooperative. Hence, from the review result, it is concluded that member control of cooperative, commitment to participate in cooperative and member loyalty and leaders, management and employee competency as well as creating and maintaining marketing linkage are the most vested measure of AMC management performance.

Contribution of agricultural cooperative to the farm productivity of member ensures its longevity in serving member-owner needs. Accordingly, the current review study concluded that increasing farm input and

output marketing volume; diversity; market share and price/cost of the products/services are business performance indicators of AMC.

Financial position ensures business sustainability although, cooperatives are not profit driven business model. with this regard, the current review study concluded that in order to have financial healthy, the conventional financial ratios such as liquidity ratio; leverage ratios and profitability ratios are used by AMC to assess financial performance.

Besides, from the review research findings, it is concluded that AMC have been used EVA and EPS indicator as contemporary financial performance measure for they ensure economic firm value and sustainability of the cooperatives in serving members.

5.2. Recommendations

From the review study result and the conclusion made, it is desired to recommend the cooperative scholars and practitioners required to use members, leaders and management and as well as market link age factors for measuring management performance of AMC. further, it is recommended that agricultural input and farm output marketing volume, diversity, price/cost and marketing share required to be used to measure business performance of AMC

As per the conclusion of the review study, conventional financial ratios ratios are required to be used for measuring financial performance of AMC with relatively lower than investor owned firm standard benchmark. Besides, it is recommended that economic value added and earnings per share are recommended to be used by cooperative scholars and practitioners as part of contemporary financial performance indicator of cooperatives including AMC.

References

1. Al-Hamouli M. Mahmoud, Yassen S. Heba, and Mohamed A. Faiza (2021). *Factor analysis of factors affecting the success of the performance of board members of rural, manufacturing, and agricultural cooperatives (Idmo city)*. *Agricultural Marketing and Commercialization Journal Vol5(1):138-152*.
2. Amondi Anne Omondi(2020). *Financial Leverage and Financial Performance of Agricultural Cooperative Societies in Kiambu County, Kenya*. MA these, Kenyatta University
3. Batzios Aristotelis, Kontogeorgos Achilleas, Chatzitheodoridis Fotios and SergakiPanagiota (2021). *What Makes Producers Participate in Marketing Cooperatives? The Northern Greece Case; Sustainability 2021, 13, 1676*.
4. Benos Theo, Kalogeras Nikos, Wetzels Martin, Ruyter Ko de 6,7 and Pennings M. E. Joost (2018). *Harnessing a 'Currency Matrix' for Performance Measurement in Cooperatives: A Multi-Phased Study, Sustainability 2018, 10, 4536;*
5. Buang, M., Abu Samah, A. (2020). *Systematic review of factors influencing the effectiveness of the cooperative board*. *REVECO. Revista de Estudios Cooperativos, Vol. 136, e71855*.
6. Candemir Ahmet Duvaleix Sabine and Latruffe Laure (2021). *Agricultural cooperatives and farm sustainability-a literature review*. *Journal of Economic Surveys, Vol. 35 (4): 1118–1144,*
7. Cheng Lance Yuxi and Katchova L. Ani (2019). *Testing capital structure theories for agricultural cooperatives*. *International Food and Agribusiness Management Review Vol 22 (1):1-14;*
8. Debebe AlemuKebede and Mesfin Lemma (2020). *Determinants of Marketing Supply Chain of Agricultural Cooperatives Output in Ethiopia*. *Journal of International Trade, Logistics and Law, Vol. 6 (1):23-32*

9. *Debela BonsaButa and Kerim Rahimato Ebrahim (2020). Assessment of Financial Performance of Agricultural Cooperative Union: Case of West Hararghe Zone Oromia regional State, Ethiopia. Archive of Business Review Vol. 8(9): 86-104;*
10. *Dendup Tashi and AdittoSatit (2020). Performance and challenges of agriculture cooperatives in Bhutan. KHON KAEN AGR. J. 48 (5): 1194-1205 (2020).*
11. *FerrazZanetti TrindadeLuana, Rezende José Amaury, de Lima Paulo Resende Joao and Todeva Emanuela (2018). Perception of Value Co-Creation Actions in Agricultural Cooperatives. Brazilian Administration Review Vol 15 (3):1-32,*
12. *Figari Krauspenhar Pinto Anelise, Lima Guasti Fabiano, Gatsios Confetti Rafael and Magnani Vinicius Medeiros (2021). Economic Value Drivers for Brazilian Agricultural Cooperatives. Revista de Administração e Contabilidade da Unisinos, Vol18(1): 56 – 77*
13. *Franken R.V. Jason and Cook L Michael (2017). A Descriptive Summary of Cooperative Governance and Performance. Journal of Cooperatives, Vol 32 (2017):23- 45*
14. *Giagnocavo Cynthia, Galdeano-Gómez Emilio and Juan Pérez-Mesa Carlos (2018). Cooperative Longevity and Sustainable Development in a Family Farming System. Sustainability 2018, 10, 2198;*
15. *Grashuis Jasper and Su Ye (2018). A Review of the Empirical Literature on Farmer Cooperatives: Performance, Ownership and Governance, Finance, and Member Attitude. Annals of Public and Cooperative Economics (2018):1-26*
16. *Golovina Svetlana, Antonova Maria and Abilova Ekaterina (2019). Assessment of Agricultural Cooperatives' Performance in Russia: The Case of the Kurgan Region. Advances in Social Science, Education and Humanities Research, volume 392 (2019).*
17. *Hao J. (2018). Cooperative member commitment, trust and social pressure-the role of members' participation in the decision-making. 10th Conference of Agricultural Economists July 28 to August 2, 2018*
18. *Karakas Cemal (2019). Cooperatives: Characteristics, activities, status, challenges. European Parliamentary Research Service*
19. *KhiariZahia (2021). Managing with Economic Value Added (EVA). Revue d'Economie et de StatistiqueAppliquée Vol. 18 (2): 6-20*
20. *Kifle T. Sebhata, Tafesse W. Gezahegnb, Tekeste Berhanu, MietMaertense, Steven Van Pasself and MarijkeD'Haese (2021). Exploring variability across cooperatives: economic performance of agricultural cooperatives in northern Ethiopia. Internationals Food and Agribusiness Management Review, Vol 24 (3):397-419;*
21. *Lucas-Martínez Gabriel, Martín-Ugedo Francisco Juan and Minguez-Vera Antonio (2020). Members' perceptions of governance in agricultural cooperatives: Evidence from Spain. Outlook on Agriculture (2020):1-8,*
22. *Malaisamy A. (2021). Agricultural marketing system and price Support-Challenge, problems and policy suggestions for Priority area in India. Journal of Social Science, Vol 12 (48):24-29*
23. *Masuku T.A., Masuku M.B. and Mutangira J.P.B. (2016). Performance of Multi-Purpose Cooperatives in The Shiselweni Region of Swaziland. International Journal of Sustainable Agricultural Research Vol.3 (4):58-71*
24. *Mekonnen Kumlachew Yitayaw (2021). Determinants of Profitability and Financial Sustainability of Saving and Credit Cooperatives in Eastern Ethiopia. International Journal of Rural Management 1-23;*
25. *Mamdouh Naoual and Ahrouch Said (2022). The Performance Prism of Cooperatives. International Journal of Scientific Engineering and Science, Vol 6 (2):20-28*
26. *NgamjanPraja and Buranasirijiroj (2020). An Investigation of the Factors Influencing the Financial Performance of Agricultural Cooperatives in Thailand. Pertanika J. Soc. Sci. & Hum. 28 (3): 2343 – 2358*

27. Omneya Abdel-Karim, Ashraf Salah, EldinBahaaBekheit (2021). Is Economic Value Added Momentum (EVA Momentum) a Better Performance Measurement Tool? Evidence from Egyptian Listed Firms. *American Journal of Industrial and Business Management*, 2021, 11, 297-319,
28. Ortmann GF and King RP (2007). *Agricultural Cooperatives I: History, Theory and Problems* Agrekon, Vol 46 (1) (March 2007): 40-68
29. Othman Rohana, EmbiRoslani, Aris Abdul Nooraslinda, ArifMaznahMohdSiti, Choo5 Ching Huang and Ismail Norashikin (2016). Board Governance and Performance: An Exploratory Study of Malaysian Cooperative Organizations. *Journal of Southeast Asian Research*, Vol. 2016 (2016):1-12
30. Paul Justin, CriadoRialp Alex (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review* Vol 29 (4):1-7
31. Rakhal Dhaneshwar (2017). Role of Board- Manager Relation on Cooperative Performance. *Janapriya Journal of Interdisciplinary Studies*, Vol. 6 (December, 2017) :
32. Ramdhani Abdullah, Ramdhani Ali Muhammad and Amin SyakurAbdusy (2014). Writing a Literature Review Research Paper: A step-by-step approach. *International Journal of Basic and Applied Science*. Vol. 03 (01): 47-56
33. Rwekaza Cronery Gratian and Anania Paulo (2020). The Power of Members in Cooperatives: Assessing Members' Participation in Decision Making Process from Selected Agricultural Marketing Co-Operatives in Shinyanga Region, Tanzania. *Journal of Co-operative and Business Studies*, Vol.5 (1):41-59
34. Shamsuddin Zelhuda, Mahmood Suraya, Ghazali Liza Puspa, Salleh Fauzilah, Nawi Amalina Md Farah (2018). Indicators for Cooperative Performance Measurement. *International Journal of Academic Research in Business and Social Sciences*; Vol. 8 (12): 577 – 585
35. Shirima Victor, Chalu Henry and Ndiege Benson (2020). Relationship Between Performance Measurement System Aspects Among AMC Societies in Rombo District, Tanzania. *East African Journal of Social and Applied Sciences* Vol.2 (2): 260-271
36. ShumetaZekarias And D'haeseMarijke. (2016), 'Do coffee cooperatives benefit farmers? An exploration of heterogeneous impact of coffee cooperative membership in Southwest Ethiopia', *International Food and Agribusiness Management Review*, Vol.19 (4): 37–52.
37. Singh Kuldeep, Misra Madhvendra, Kumar Mohit and Tiwari Vineet (2019). A Study on the Determinants of Financial Performance of U.S. Agricultural Cooperatives. *Journal of Business Economics and Management*. Vol 20 (4): 633–647,
38. Tumenta Fredrick Budi, Amungwa Athanasius Fonteh and Nformi Ibrahim Manu (2021). Role of agricultural cooperatives in rural development in the era of liberalization in the North West and South West regions of Cameroon. *Journal of Agricultural Extension and Rural Development*, Vol.13(1):69-81
39. Virginia Bodolica and Martin Spraggon, (2018) "An end-to-end process of writing and publishing influential literature review articles: Do's and don'ts", *Management Decision*,
40. Wang Yung-Chang (2016). The optimal capital structure in agricultural cooperatives under the revolving fund cycles. *Agric.Econ- Czech*, Vol.62 (1): 45–50
41. Wolfs winkel F. Joost, FurtmuellerElfi and Wilderom P.M. Celeste (2013). Using grounded theory as a method for rigorously reviewing literature. *European Journal of Information Systems* Vol. 22 (2013):45-55
42. Zakaria Zaifalaila, Rahim Rahman Abdul Azealia and AmanZaki (2019). Integration of Sustainability-Oriented Practices in The Oil Palm Cooperatives Performance: Proposal of A Conceptual Model. *Asian Journal of Research in Business and Management*. Vo. 1(2):1-18

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