
AGRICULTURAL COOPERATIVES IN THE KINGDOM OF ESWATINI: FINANCIAL EFFICIENCY, CHALLENGES AND OPPORTUNITIES

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ABSTRACT: *Promoting cooperative financial efficiency through problem-solving and arresting opportunities builds cooperative resilience necessary for ameliorating rural livelihoods. Therefore, this study assessed the income-generating capacity, challenges, and opportunities available to agricultural cooperatives in Eswatini. Secondary data were sourced from government and parastatal reports, while primary data were collected through personal interviews guided by a structured questionnaire. Financial ratios, descriptive statistics, and content analysis were employed for data analysis. The results revealed that broiler, dairy, crop, animal feed and sugarcane cooperatives had strong financial efficiency, 81.75%, 65.36%, 49.61%, 40.33% and 36.37%, respectively. High production cost, free-riders, insufficient capital and lack of training on conflict resolution and administration are the major challenges encountered by cooperatives. Agribusiness opportunities exist in all subsectors. An inclusive regulatory body is recommended to establish production-marketing frameworks to enhance financial efficiency. Pragmatic training programmes are required to address intra-organisational challenges, while inter-organisational linkages are necessary to harness opportunities.*

KEYWORDS: agricultural cooperatives, cooperative resilience, financial efficiency, challenges, opportunities

INTRODUCTION

Nowadays the world is confronted by the challenges of increasing food demand and shifts in consumer preferences. According to FAO (2009), more food and fibre must be produced to meet the food demand imposed by the growing population, especially sub-Saharan Africa. Furthermore, consumers are demanding higher quality products, more variety and more convenience (Bijman, 2002), and have become more concerned with food safety and production conditions (Zhou *et al.*, 2018). Governments and interest groups, on the other hand, have gained interest in food safety, environmental protection and animal welfare. These demands and shift in preferences have introduced new dimensions of market competition (Gou, 2010), to which farmers must adapt.

In coping with these challenges, farmers have resorted to the concept of co-operation, as means of reorganising resources for economic and social stability (Masuku *et al.*, 2016). Eswatini embraced this global initiative and established the Cooperative Development College in 1976, mandated to provide cooperative education (Hlatshwako, 2009). Since cooperatives can be formed in any sector of the economy (Mazzarol *et al.*, 2013), the country's cooperative movement encapsulates cooperatives in agriculture, arts and craft, retail and savings and credit. According to the Cooperative Development Department (2017), there were 230 registered multipurpose cooperatives, out of which 53% were agricultural cooperatives and 47% were non-agricultural cooperatives. Figures 1a and 1b show the distribution of registered agricultural cooperatives in the regions and a comparison of active and dormant cooperatives in 2017.

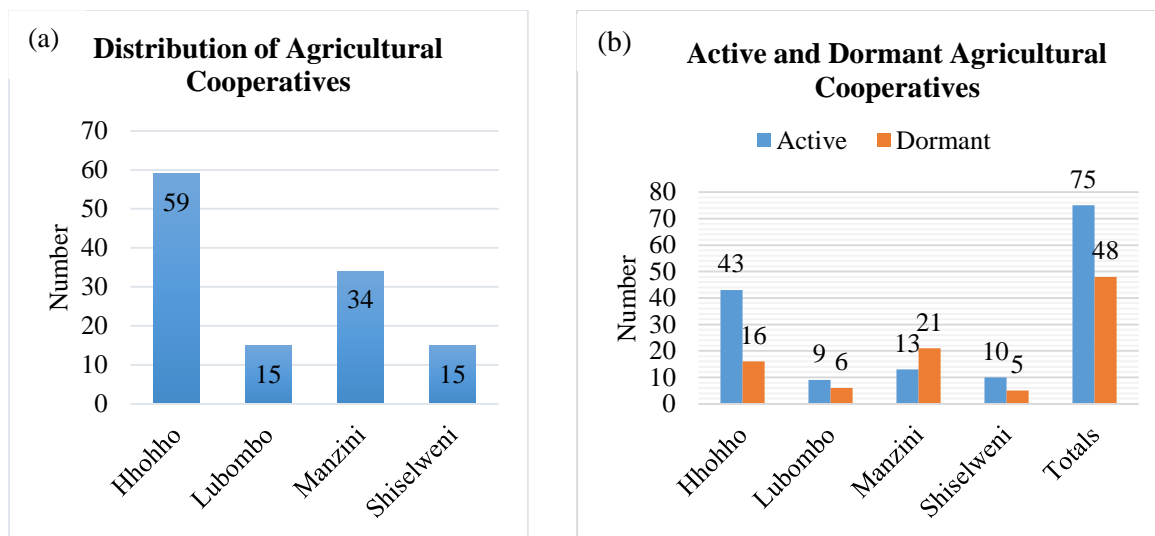


Figure 1a: Number of agricultural cooperatives in the different regions.

Figure 1b: Comparison of active and dormant agricultural cooperatives.

Source: Adapted from the Cooperative Development Department (2017).

As indicated in Figure 1b the number of registered but non-functional (dormant) agricultural cooperatives is more than half the number of active cooperatives (64%). This reveals that the cooperative movement in Eswatini lacks the resilience necessary for withstanding shocks and challenges. This challenge is severe in the Manzini region, where the rate of dormancy is 62% compared to the 38% rate of active cooperatives. High dormancy rate undermines the integrity of the embedded power of association within the structure of a cooperative economy system, hampering the efforts towards economic growth to exacerbate hunger and poverty. Therefore, in pursuit of building cooperative resilience, the study sought to:

- i. Evaluate the efficiency of agricultural cooperatives in generating income.
- ii. Describe the challenges encountered by agricultural cooperatives.
- iii. Identify the agribusiness opportunities available to agricultural cooperatives.

LITERATURE REVIEW

The concept of a co-operative

The International Cooperative Alliance (1995) defined a cooperative as “an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise.” Therefore, a cooperative must be independent, promoted, owned and democratically controlled by members to meet their common needs, thus said to be user-oriented (Luo *et al.*, 2017).

The International Cooperative Alliance (ICA) further outlined several cooperative values, namely, self-help, self-responsibility, democracy, equality, equity, and solidarity along with the ethical values of honesty, openness, social responsibility and caring for others. These values are implemented through a set of principles such as voluntary and open membership, democratic member control, member economic participation, autonomy and independence, education, training and information, co-operation among cooperatives and concern for community (ICA, 1995). However, cooperatives are free to change these values or utilize some according to their needs. Novkovic (2008) further argued that cooperative organisations that place strict adherence to these values and principles are bound to be successful.

Importance of cooperatives

The primary obligation of agricultural cooperatives is to advance members’ income gains through specific services. Such services include overcoming barriers to assets, provision of information and the marketing of agricultural commodities (Chambo, 2009). Agricultural cooperatives are effective in encouraging farmers to overcome market access barriers, thus promoting market competition that improves product quality standards (Allahdadi and Aref, 2011). Specifically, cooperatives provide production, marketing and economic services such as the mobilisation of financial capital, collective production and value addition to realize economies of scale, collective value chain management and increased market access via collective bargaining and negotiation with buyers (Tirivayi *et al.*, 2018). They also provide capacity building, networking and extension services such as education and training, advice on production, and enable members to share knowledge and experiences to advance skills in business management (Lecoutere, 2017).

The existence of cooperatives has also had an impact on general rural development through employment creation, market development, advancement of rural incomes and augmented access to social services (Chambo, 2009). Furthermore, cooperatives protect members from potential risks through building resilience capabilities, thus sustaining food security and rural development (Ji and Jia, 2018). Lecoutere (2017) also added that cooperatives are a promising avenue for contributing towards the economic and social empowerment of the farming population.

Structurally, cooperatives provide a critical organisational framework necessary for the mobilisation of isolated small-scale family farms for self-directed economic development. Such farms are dispersed in small productive units, each producing small volumes of products and do not have the possibility to realize economies of scale to develop basic market power critical for market competition (Herbel *et al.*, 2015). In the context of Sub-Saharan Africa, cooperatives have

been widely discussed in terms of improving bargaining power and in facilitating risk-sharing (Wossen *et al.*, 2017).

The in-depth research by Bijman *et al.*, (2012) provides evidence that there exists not a single country in the world with an advanced food and agriculture system, in which agriculture cooperatives do not play a key role. It is, therefore, imperative for developing economies, such as Eswatini, to invest in the establishment of a cooperative-based agricultural production and marketing system, in order to improve productivity to meet the ever-increasing food demand, quality and safety.

Cooperative resilience

Organisational resilience is the ability to develop a set of dynamic capabilities to adjust to shocks, mitigate its effects and cope with consequences while simultaneously taking advantage of opportunities emerging from a crisis (Borda-Rodriguez and Vicari, 2014). Cooperatives in developing countries are exposed to shocks such as economic, political and climate crises compared to their counterparts in the developed world (Birchall and Simmons, 2004). They require a resilient organisational structure to cope with the shocks while continuing to deliver services and meeting the needs of their members. This study focusses on building cooperative resilience through enhanced capacity for income generation and addressing cooperative challenges that aggravate the problem of short cooperative life span. The study further identifies available agribusiness opportunities that can be exploited by agricultural cooperatives in order to create the incentive desired for the development of resilience towards shocks.

Borda-Rodriguez and Vicari (2014) categorized the factors affecting cooperative resilience into five interconnected groups. First, membership inspiration, which is crucial in building members' sense of identity, commitment and cohesion necessary for cooperative resilience (Mazzarol *et al.*, 2011). Second, collective skills that allow members to learn from each other and from external players such as development aid agencies, international and apex organisations. Third, networking, which facilitates access to resources, knowledge and opportunities, and cooperative leaders are crucial in this regard (Simmons and Birchall, 2008). Such networks can be horizontal (where homogeneous cooperatives are gathered in unions) or vertical (among cooperatives in the same supply chain as well as with other market players and external agents). Fourth, innovation that allows individuals and organisations to rearrange existing and new resources to deliver improved products and services (Damanpour and Evan, 1984). The drivers of innovation include availability of and access to credit, prices and competitive pressures from commodity value. Fifth, government support that assumes forms of grants or subsidies, enabling policy frameworks and policy regulation for cooperatives to flourish.

Specifically, there are many challenges that undermine cooperative resilience in Africa. To begin with, Africa stands on a weak bargaining position during trade negotiations. The continent suffers from tenuous opportunities for processing and value addition required for high-value export products. This, therefore, imposes the exportation of raw material at low prices, thereby subverting the ability of cooperatives to contribute meaningfully towards rural economic growth. Second, the notion of cooperative banks, which provides friendly cost of loans, has not yet been fully

operationalised, exposing cooperatives to high costs of credit. Third, traditional agricultural cooperatives are driven by patronage refund to members and have not been transformed into competitive market players. Fourth, agricultural cooperatives are faced with intra-organisational challenges of leadership, management and general governance complexity (Borda-Rodriguez and Vicari, 2014). They require entrepreneurial leaders and managers, but many cooperatives have not yet cultivated the right leadership and highly qualified management. Fifth, the subject of cooperative membership is still not well understood. This seeds in more free-riders than genuine members, marginal incentive structure for attracting membership and lack of member education and training (Chambo, 2009). Last, the threat to cooperative identity, “degeneration thesis,” always haunts cooperatives (Somerville, 2007). Market pressure (price competition and liquidity of investment) tends to force cooperatives to become capitalistic enterprises over time. These challenges render cooperatives inefficient in production and marketing, which in turn induce financial inefficiency that erodes cooperative resilience.

Financial efficiency

Financial efficiency is the effectiveness of an enterprise in generating income from its investment. It measures the intensity with which a farm-firm uses its assets or investment to generate revenue and the effectiveness of producing, purchasing, pricing, financing and marketing decisions (Zala, 2010). Financial efficiency is directly linked with evaluating business’ liquidity, stability and profitability. Such efficiency is desirable and necessary for all business enterprises, regardless of type and formation. High enterprise financial efficacy is a fundamental incentive for investment and translates to direct amelioration of livelihoods. The latest work by Masuku *et al.*, (2016) identified the determinants of financial performance of cooperatives in the Shiselweni region, and no research has assessed cooperatives financial efficiency, challenges and opportunities at national level. Strong financial efficiency generates more incentives for members, thus building the required resilience towards shocks.

The fact that parametric (Farrell, 1957; Aigner *et al.*, 1977) and nonparametric (Charnes *et al.*, 1978) frontier approaches of measuring farm-firm efficiency have dominated literature does not disqualify other methods of analysis such as financial ratios (Kulawik, 2010). This study adopts the latter for analysis, specifically, net income ratio, profitability of expenses and profitability ratio. Financial ratios are essential in enterprise progress evaluation to identify red flags and maximize performance. In this regard, profitability ratios serve as a proxy for enterprise ability to generate profit in a given period (Zala, 2010). Profitability analysis is also imperative for managerial decisions such as supplementary investment, expansion and bonuses, and dividends payment.

METHODOLOGY

Sampling and data collection

Multiple sampling was conducted to collect the data for analysis. First, a census of active agricultural cooperatives (N=75) was employed on secondary data to assess the financial efficiency of cooperatives. Secondary financial performance data were sourced from the Cooperative Development Department Survey Report of 2017. In order to identify the challenges encountered by agricultural cooperatives, purposive sampling was further applied to select

nineteen (19) primary cooperatives and one apex cooperative (S=20) as shown in Table 1. This sampling method was used because the authors required to seek information from long-standing active cooperatives at both primary and apex levels. The selected cooperatives are members of Eswatini Farmers' Cooperative Union (ESWAFU), a long-standing apex cooperative that commands a membership of 79% of all agricultural cooperative in the country.

Table 1. Activities and number of sampled agricultural cooperatives (S=20).

Type	Cooperative Activity	Number of cooperatives
Production	Piggery	1
	Vegetables	2
	Egg production	1
	Maize	4
	Sugarcane	4
Services	Farm inputs	3
	Tractor hiring	2
Processing	Maize milling	1
Marketing	Fruits and vegetables marketing	2
Total		20

Primary data were collected through personal interviews guided by a structured questionnaire. A six-point agreement Likert scale was used for identifying challenges encountered by cooperatives. The Likert scale was designated as follows: 1=Strongly Disagree, 2=Disagree, 3=Slightly Disagree, 4=Slightly Agree, 5=Agree and 6=Strongly Agree. Further secondary data, for identifying agribusiness opportunities available to cooperatives, were sourced from the National Agricultural Marketing Board Report of 2017, Eswatini Dairy Board Report of 2017 and the Department of Veterinary and Livestock Services Report of 2017.

3.2 Data analysis

The study employed the net income ratio, profitability of expenses ratio and the profitability ratio to measure the financial efficiency of all registered active agricultural cooperatives (N=75). Net income ratio is a percentage indicator of excess income generated by an enterprise after settling expenses. The higher the percentage, the stronger the ratio, and the higher the efficiency of farm-firm profitability. Farm-firms with a ratio greater than 20% possess a strong capacity to generate income, and anything less than 10% is indicative of high expenditure imposed on gross income. The financial ratios utilized in the study were computed as follows:

$$\text{Net Income ratio} = (NI/GI) \times 100 \quad (1)$$

$$\text{Profitability of Expenses} = NI/TE \quad (2)$$

$$\text{Profitability ratio} = GI/TE \quad (3)$$

Where: *NI* – Net Income; *GI* – Gross Income; *TE* – Total Expenses

The study further adopted a descriptive analysis approach, applying descriptive statistics (means, standard deviation and percentages) to identify the challenges encountered by agricultural cooperatives. Content analysis was applied on secondary data from government and parastatal reports to identify the agribusiness opportunities available to cooperatives.

RESULTS AND DISCUSSION

Financial efficiency

Table 2 presents a financial performance analysis of agricultural cooperative in 2017 based on average gross income, average total expenses and average net income in Emalangeneni (Eswatini currency denoted by E). Financial efficiency was assessed through net income ratio, profitability of expenses ratio and profitability ratio.

Sugarcane cooperatives had the highest average net income (E1,660,227), followed the cooperative in animal feed production (E101,463) and then cooperatives in farm input trade (E40,319). However, broiler cooperatives (net income = E19,415) showed the highest financial efficiency, with the net income, profitability of expenses and profitability ratios of 81.75%, 4.48 and 5.48, respectively. In other words, broiler cooperatives achieved the lowest operating expenses ratio (18.25%), with the ability to generate more than four times net income than expenses, thus increasing gross income more than five times compared to total expenses. This means that the broiler cooperative enterprise has the ability to yield more income per unit of investment compared to all other cooperatives in the different enterprises.

Table 2. Financial efficiency of active agricultural cooperatives (N=75).

Main activity	Gross Income (E)	Total Expenses (E)	Net Income (E)	Net Income ratio (%)	Profitability of Expenses	Profitability ratio
Animal feed	251,599	150,136	101,463	40.33	0.68	1.68
Broilers	23,750	4,335	19,415	81.75	4.48	5.48
Crops	81,048	40,838	40,210	49.61	0.98	1.98
Dairy	23,868	8,267	15,601	65.36	1.89	2.89
Farm inputs	146,352	106,033	40,319	27.55	0.38	1.38
Layers	3,591	3,000	591	16.46	0.20	1.20
Piggery	34,714	32,220	2,494	7.18	0.08	1.08
Sugarcane	4,564,756	2,904,529	1,660,227	36.37	0.57	1.57
Tractor hire	41,166	38,769	2,397	5.82	0.06	1.06
Vegetables	12,805	9,650	3,155	24.64	0.33	1.33

Source: Adapted from the Cooperative Development Department (2017)

Dairy cooperatives achieved the second-best financial efficiency with 65.36% net income ratio, 1.89 profitability of expenses ratio and 2.89 profitability ratio. This is attributed to the Eswatini Dairy Board for advancing training, organisation and monitoring of dairy farmers in the country. Crops production cooperatives achieved the third-highest efficiency with 49.61% net income ratio, 0.98 profitability of expenses ratio and 1.98 profitability ratio. Animal feed, sugarcane, farm inputs and vegetable cooperatives had net income ratios greater than 20%, indicating a strong capacity to generate income from investment.

The strong financial efficiency and profitability ratios for broiler, dairy, crop, animal feed, sugarcane, inputs and vegetable cooperatives build the incentive necessary for cooperative resilience. Strong income-generating capacity forms a solid basis necessary for cooperatives to unleash the power of association to increase rural incomes, thereby promoting cooperative resilience. Therefore, financially efficient cooperative-based agricultural systems are pivotal in alleviating poverty in developing countries.

High expenses for sugarcane cooperatives induced a 63.63% operating expenses ratio, deflating the net income ratio to a low 36.37%. Although this is still a strong income-generating capacity, there is need to underscore the expenses inflators, especially institutional factors such as sugar export tariffs.

Layers, piggery and tractor hiring cooperatives had net income ratios lower than 20% (16.46%, 7.18% and 5.82%, respectively). The lower than 10% net income ratios for piggery and tractor hiring cooperatives indicate weak capacity in generating income from investment. There is great need to mount an intensive enquiry on barriers to profitability for these cooperatives.

Challenges encountered by agricultural cooperatives

The mid-point, 3.5 (of the six-point Likert-scale), was set as the criterion for distinguishing challenges encountered by agricultural cooperatives. Fourteen (14) challenges were identified from a list of forty (40) statements on possible challenges as indicated in Table 3. In order of importance, agricultural cooperatives in the Eswatini are challenged by production-related challenges ($M = 4.31$), followed by institutional-related challenges ($M = 4.13$), market-related challenges ($M = 4.00$) and intra-organisational issues ($M = 4.00$).

High production cost ($M = 4.75$, $SD = 1.525$) induced by high input cost, transport costs, low levels of subsidy and high government tax is agreed to be the major challenge affecting the production and marketing abilities cooperatives. Considering the 63% poverty rate in the country (Central Bank of Eswatini, 2017) and the lack of cooperative banks, the government needs to review the subsidy and import and export taxation policies to address, amicably, the challenge of high production cost.

Crop production cooperatives that had joined the government subsidy scheme have had to suffer delayed input deliveries in recent times. The government subsidy scheme provides a package of tractor and input services. The government has often complained about lack of funds for fuel and tractor repairs, causing late and reduced ploughing. Moreover, seeds and fertilizers have been

delivered late, forcing farmers to seek extra funds to solicit these inputs from other sources. FAO (1996) noted that governments in developing countries have struggled to empower and fully support the course of agricultural cooperatives, which seems to be true, in this regard, for the Government of Eswatini.

Attwood and Baviskar (1987) stated that other than insufficient funds, lack of improved technology and deficit of educated administrative personnel, other key intra-organisational issues affect cooperative performance. Our results reveal several intertwined intra-organisational challenges, of which the free-rider problem is most important. The free-rider problem is basically an incentive-related challenge emanating from the collective nature of cooperative organisations (Giannakas *et al.*, 2016) and is generally attributed to untradeable common property rights, where new members obtain the same patronage, residual claim and control rights as existing members (Katz and Boland, 2002).

Table 3. Challenges encountered by agricultural cooperatives in Eswatini.

Challenge Description	Mean	SD
<i>Production-related challenges</i>		
High input cost	4.90	1.309
High production cost	4.75	1.525
High transport cost	4.00	1.835
Inputs arrive late into the production season	3.60	1.877
Average	4.31	
<i>Institutional challenges</i>		
Level of input subsidies is low	4.30	1.559
Government taxation is very high	3.95	2.150
Average	4.13	
<i>Market-related challenges</i>		
Lack of vehicle for transporting produce to the market	4.00	1.701
Transport cost is too high	4.00	1.861
Average	4.00	
<i>Intra-organisational challenges</i>		
Some members are free-riders	4.70	1.218
Insufficient capital to grow our business	4.30	1.838
Lack of training on conflict resolution	4.05	1.761
Lack of education on cooperative administration and leadership	3.70	1.701
Long-overdue debts by members to co-operative	3.65	1.906
Influential members tend to influence decision making	3.60	1.698
Average	4.00	

However, for Eswatini's agricultural cooperatives, this challenge is largely associated with the assumption that cooperative members do not bear the full impact of their actions or decisions (Borgen, 2004). Some cooperative members often do not attend cooperative meetings and activities, leaving most of the work in the hands of committee members. Such lack of participation causes underinvestment and cooperative inefficiency, resulting in conflicts, poor management and

low incentives for members. Cooperatives that fail to yield meaningful incentives for members, fail to ameliorate the livelihoods of their members, thus short life span. Mazzarol *et al.*, (2011) argued that membership inspiration through building a “sense of identity, commitment and cohesion” is integral in dealing with the problem of free riders. Moreover, improved intra-organisational communication to construct cooperative homogeneity of economic interest is meaningful in eliminating free-riders (Borgen, 2004). There is also a need to conduct further enquiry on the impact of “group size” and “right partner” issues that can exacerbate the free-rider problem.

Co-operators agreed that their organisations lack investment capital ($M = 4.30$, $SD = 1.838$). Considering the value of self-help, cooperatives can build their financial empowerment through delayed patronisation to build long-term financial capacity, rather than short-term investment benefit. The results further reveal the problem of lack of educational training on conflict resolution ($M = 4.05$, $SD = 1.761$) and cooperative administration ($M = 3.70$, $SD = 1.701$). Collaboration between apex cooperatives and the College of Cooperative Development can help in developing and implementing needs-based pragmatic syllabi on these subjects. Conflict resolution can be solved through facilitating inclusive and objective discussion during meetings, institutionalisation of grievance-handling procedures, protection of rights of individual members and organisational self-audits (Darr, 1999). Conversely, under non-violent circumstances, conflict is not a threat to cooperative resilience, but a positive force towards organisational social and economic change necessary for building competitiveness and stability (Warner, 2000). In this regard, good governance becomes key for consensus building to ensure inclusive gain.

Solving the problem of long-overdue debt by members to their cooperative requires building cooperative financial efficiency to maximize benefit from available investment. In instances of vibrant income-generating abilities, members derive the incentive to pay up debts and subscriptions in order to attain maximum benefit from the cooperative. However, if cooperatives lack the capacity for financial efficiency, members often default. Furthermore, agreements on deducting yearly subscriptions and loan recovery from patronage dividends can be reached with owing members, but special care should be considered to address issues of poor governance, mismanagement of funds and intra-organisational tension and conflicts. In the existence of such issues, members lack the enthusiasm for paying debts and subscriptions, undermining cooperative resilience. Such issues also lead to conflicts and premature liquidation of cooperatives.

In addition, the results reveal that the decision-making process is generally subjected to the influence of extrovert or influential members ($M = 3.60$, $SD = 1.698$). This challenge is related to poor governance that is unable to guide meetings properly to recognize ideas from all members. Poor governance fails to cultivate a conducive environment necessary for fair deliberations required for good decision-making. This is another call for education and training on good cooperative administration and leadership.

On another note, different cooperatives in different subsectors experience unique challenges. Sugarcane cooperatives are mainly affected by the fluctuation of the sugar price induced by competition at world market. Whilst the price fluctuates, government taxes and electricity cost

escalate to the disadvantage of these cooperatives. Similarly, maize cooperatives are often crippled by the low maize price. The major maize purchasing public enterprise bought a 50kg bag at E130.00 in 2018, whereas market price stood at E400.00. This contributes to reduced net income for these cooperatives, thus enfeebling cooperative resilience. Such institutional challenges can be addressed by establishing domestic policies that advance the cooperative movement agenda, creating a win-win situation for all market players.

Structurally, the cooperative movement in Eswatini lacks a collective value chain management strategy. There is a lack of networking within cooperatives in the same and different sectors. Such segmentation undermines the power of association in providing services such as cooperative banks, insurance and extension services. It further retards the progress of cooperative expansion programmes. Apex cooperatives should focus on such networking function to advance the collective agenda of the cooperative movement.

Opportunities for agricultural cooperatives

Agricultural cooperatives can reach the market either through the domestic production route or through importation. It is always better for any economy to exploit domestic production over importation to build up food security, job creation and social stability. In addition, cooperatives can venture into processing and value addition to produce agri-goods consumed in the country. Our focus in this study was to scan the cooperative operation space to identify available agribusiness opportunities to promote domestic agricultural production through cooperatives.

Table 4. Volumes and values of scheduled products imported in 2016/17.

Product	Volume (Tonne)	Value (E)	Unit Value (E)
Fresh Fruits and Vegetables	26,427	80,061,748	3,030
Frozen Fruits and Vegetables	1,771	26,790,648	15,127
Mushroom	198	2,245,618	11,342
Total	28,396	109,098,014	
Rice	31,457	169,459,987	5,387
White Maize	32,225	128,180,880	3,978
Yellow Maize	68,284	203,273,633	2,977
Starch	610	4,796,383	7,863
Popcorn	527	5,012,861	9,512
Animal Feed	9,001	37,802,172	4,200
Total	142,104	548,525,916	
Turkey	706	9,051,527	12,821
Processed Poultry	1,399	15,698,839	11,221
Free Range Chicken	4	37,528	9,382
Whole Birds & Portions	15	379,513	25,301
Ducks	4	184,410	46,103
Total	2,128	25,351,817	

Source: National Agricultural Marketing Board (2017).

All the cooperatives that participated in the study indicated that they aspire to expand their scale of production and services base. This is because the country relies on imports for the main agri-products such as maize, meat, fruits, vegetables, rice, dairy and processed foods. Table 4 indicates the volume and value of the different agricultural products imported in 2016/2017.

The whole grain enterprise indicates a business opportunity worth E505,927,361. Yellow maize showed the highest demand of 68,284 tonnes, followed by white maize (32,225 tonnes), rice (31,457 tonnes) and popcorn (527 tonnes). However, popcorn showed the highest value per tonne (E9,512), revealing the ability to yield more income than other grains per tonne. With processing (starch and animal feed), the crop production enterprise provides a total business opportunity worth E548,525,916. Currently, importers take up this business opportunity.

Fresh fruit and vegetables, frozen fruit and vegetables and mushroom accounted for a business opportunity worth E109,098,014, which is currently taken by imports. The 399% difference between the unit (tonne) value of fresh fruit and vegetables (E3,030) and frozen fruit and vegetables (E15,127) reflects the power of value addition. This is a huge opportunity available for cooperatives to exploit.

The broiler chicken self-sufficiency rate for Eswatini is near 100%, often eliminating the need for chicken meat imports. However, minor fluctuations in domestic production necessitate importation of whole bird and portions from time-time. Further business opportunity exists through the export market to Mozambique. Cooperatives can also venture into chicken meat production through processing and value addition since 1,399 tonnes were imported at a market value of E15,698,839. Another available business opportunity is through poultry production for the niche markets; free-range organic chicken meat for organic food markets and ducks meat for the Japanese and Chinese restaurants in the country. Currently, organic free-range chicken meat is imported from South Africa. These niche markets provide a business opportunity worth of E221,938.

Table 5 reveals that beef was the most imported (3,046.32 tonnes) type of red meat at a value of E140,855,212.30. Current records of the Cooperative Development Department do not reflect any beef cattle farmers' co-operative, yet beef is a high-value product indicating the highest demand among red meats. Further agribusiness opportunity exists through the beef export market channel to the unlimited European Union market, since supply from Eswatini through this market declined from 703.25 tonnes to 310 tonnes in 2017 (Department of Veterinary and Livestock Services, 2017).

Table 5. Import volume and value for different types of red meat in 2017.

Product	Import (Tonnes)	Import value (E)	Unit Value (E)
Beef	3,046.32	140,855,212.30	46,237.83
Pork	606.42	22,712,641.52	37,453.65
Mutton	141.77	5,965,556.65	42,079.12
Total	3,794.51	169,533,410.47	

Source: Adapted from the Department of Veterinary and Livestock Services (2017).

It is also worth noting that of the total import value for mutton (E5,701,688.78) is composed of 95.58% lamb. Farmers who own abattoir facilities directly import sheep from South Africa for immediate slaughter to supply domestic demand (Department of Veterinary and Livestock Services, 2017). Goats and sheep are small ruminant animals requiring less feed and adapting better than large ruminants to the effects of climate change. Farmers can make profits by venturing into small ruminant production at a lesser cost than cattle. The combined values red meat of E169,533,410.47 reflect a huge agribusiness opportunity for agricultural cooperatives.

Dairy cooperatives have vast opportunities for business expansion. Figure 3 indicates a fresh milk import rate that has remained at about 80% or above. Although domestic milk production is gradually increasing, the rate of increase is very low compared to imports. The fresh milk import percentage was 79.36% in 2017; indicating an agribusiness opportunity that agricultural cooperatives can take.

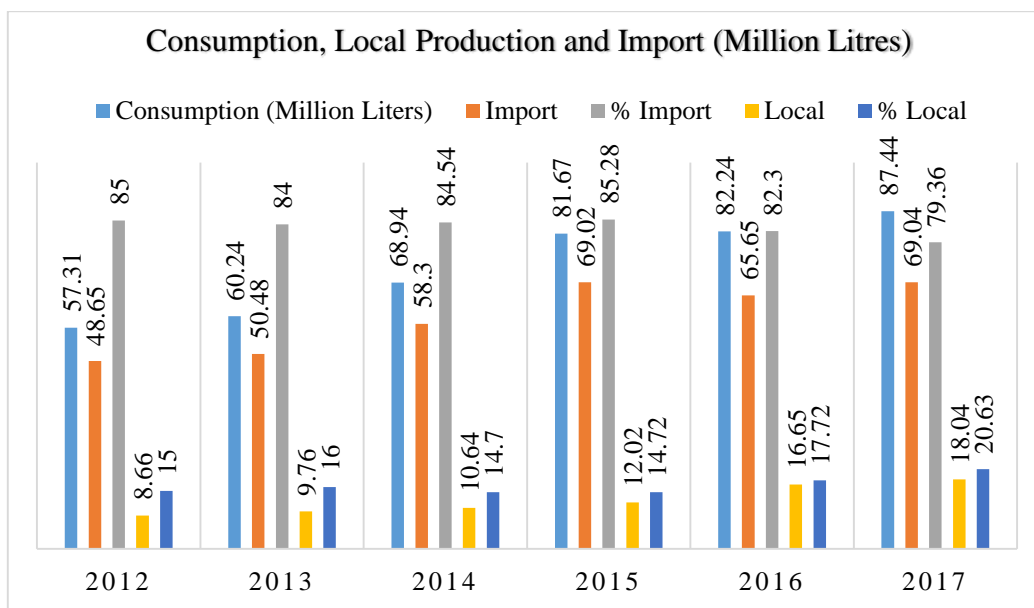


Figure 2: Fresh milk consumption, domestic production and imports (2012-2017).

Source: Adapted from Eswatini Dairy Board (2017)

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

According to the results, sugarcane cooperatives had the highest net income, followed by cooperatives involved in crop production and farm input trading. However, broiler cooperatives revealed the highest capacity of generating income from investment. Although several types of cooperatives revealed a strong financial efficiency, cooperatives in egg production, piggery and tractor hiring services indicated a weak capacity of generating income. High production cost induced by the high cost of input, transport cost, government taxation and low subsidy levels is

the major problem encountered by co-operative. Intra-organisational challenges include free-riders, insufficient capital, lack of training in conflict resolution, cooperative administration and leadership, long overdue debts by members and poor decision-making processes. Sectorial challenges include sugar price fluctuation for sugarcane cooperative and low selling prices for maize cooperatives. Structurally, the cooperative movement lacks a well-organised integrative strategy for value chain management. Business opportunities exist in all the subsectors of the agriculture sector.

Recommendations for action

Improving cooperative financial efficiency requires close collaboration between government and cooperatives to establish an inclusive regulatory organ with establishment and oversight functions on production and marketing frameworks based on domestic output and import levels. This is necessary to ensure financial efficiency of domestic producers (cooperatives included) by controlling the importation of food commodities and inputs to curb the problem of production cost and unfair competition from cheaper imports. The review of parastatal operations and pricing is also paramount in eliminating financial efficiency deflators.

The establishment of inter-organisational linkages through apex cooperatives should be focused on collaborative strategies to provide cooperative services such as education and training, resource mobilisation and organised market networking to advance market incentives. This is necessary to ensure functional production and marketing systems that enhance financial efficiency. Inter-organisational cooperation is also integral for collective value chain management to harness the vast agribusiness opportunities within the agro-food industry.

Individual cooperatives must invest in member capacitation programmes to ensure understanding, adoption and application of cooperative principles and values. This would enhance cooperative resilience through the elimination of intra-organisational challenges and further build cohesion and commitment within cooperatives. Pragmatic education and training programmes on free-riders, conflict resolution and cooperative administration must be mounted to assist co-operators. Cooperatives should also intensify production and marketing activities to take advantage of the identified agribusiness opportunities within the agri-food industry. Furthermore, cooperatives should embark on diversification strategies to invest in high-value products and processing functions. This would promote the development of the income incentive required for sustainable cooperative performance.

Recommendations for further research

There is a need for further empirical enquiry into the operations of cooperatives to reveal sources of financial, production and marketing inefficiencies. This is a basic strategy for improving production and marketing efficiency required for enhancing financial efficiency and cooperative resilience. Moreover, a comprehensive training needs assessment is necessary for developing training programmes that advance the understanding of cooperativism, and cooperative leadership and administration. This is critically vital for good cooperative administration and member participation, which prerequisite cooperative resilience.

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