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Profitability Assessment of Rubber Producers' Society Poothrikka, Kerala, India

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Abstract: ***Rubber Producers' Societies (RPS) are voluntary self help associations of small growers of Natural Rubber. Profitability is an indication of the efficiency with which the operations of the business are carried out. The present study assessed the profitability of RPS Poothrikka in Ernakulam district of Kerala, India. Study solely depends on secondary data and was collected from the annual reports of the society from the year 2008-09 to 2017-18. The analyses gave the outcome that all the 4 ratios considered under study was in favour of society and hence concluded that RPS Poothrikka maintained good profitability position.***

Keywords: Rubber Producers' Society, Natural Rubber, Profitability, Ratios, Kerala

1. Introduction

Rubber Producers' Society Poothrikka is situated in Ernakulam district of Kerala state, India. The objectives of the society are work for prosperity and agricultural development, socio-economic condition of the rubber growers inside the locale, without any intension of profit making. It got registered on January and started functioning on 27th of March 1990 with register number ER 26/90. Jurisdiction of the RPS covered Poothrikka and Maneed grama panchayats of Kunnathunaadu thaluk. The society was doing the activities such as input supply at lower rate, spraying, soil testing with the help of rubber board etc., from 1990, collection of latex since 1999 and sheet processing from the year 2002.

Any cultivators who possesses or having lawful right on a minimum area of 0.20 ha of rubber inside the region of activity and who consents to sell the item through the society can be a member of the society. The individuals who are interested to turn into a member of the society are ought to apply in the recommended structure transmitting ₹2000 as membership charges and ₹100 as yearly subscription. The individuals should transmit the membership ahead of time in April consistently. The individual will be excluded and stops to be a part on the off chance that he/she looses the legitimate right on minimum area and neglects to dispatch yearly subscription fee for 2 years.

1.1 Infrastructure

To ensure livelihood security to the small growers, building up of technological infrastructure is essential for processing and marketing of rubber. RPS Poothrikka has adopted the concept of community processing or group processing to ensure the quality for the natural rubber after primary processing. To realize group processing and marketing, RPS require infrastructure such as own land, water, electricity, office-cum-latex collection centre, latex collection equipments, group processing centers etc.

Table 1: Infrastructure facilities of RPS Poothrikka

S. No.	*Item*	*Extent/ Quantity*	*Written Down Value as on 31/03/2017 (₹ in lakhs)*
1.	Land	20 cents	1.13
2.	Building	3500 sq. ft.	17.78
3.	Computer	1	0.03
4.	Dish and vessels	350+	0.61
5.	Furniture and fittings	10+	0.84
6.	Plant and Machinery (including ETP)	5+	12.37

Source: Audit report of RPS Poothrikka of 2016-17

Table 1 describes the infrastructure facilities of RPS Poothrikka. The society has all facilities which concludes that RPS Poothrikka is self-sufficient enough to carry out its functions without depending on external help.

2. Literature Survey

Balakrishnan (2013) observed influence of Rubber Producers Societies (RPSs) on rubber farmers in Kerala which focused on the cost and return of rubber production among farmers of Rubber Board promoted Rubber Producers' Society (RPS) with respect to non-members of RPS. The study identified that the member farmers of Rubber Producers' Society managed lesser cost of cultivation by 14% compared to non-members. Average cost of cultivation of rubber was around ₹ 62,500 per acre, of which labor cost contributed more than 50 per cent. The average gross return from rubber plantation was ₹1, 67,700/acre. RPS members benefited by reduced processing cost and output in comparison to the non member community. In addition, members have also derived better processing and marketing facilities through the RPSs. However transaction cost incurred by RPS members for getting benefits from Rubber Board was high and very marginally lower in comparison to non-members. [1]

Hameedu (2014) analysed in his study role of Rubber Producers' Societies in Kerala that formation of RPS has improved the welfare of small rubber growers despite the fact that Rubber Producers' Society has its own limitations. Involvement of RPS improved the quality of rubber by

uniformly implementing applied synergies. This has significantly enabled to increased income of the small rubber growers which ultimately improved their standard of living. The various schemes promoted by Rubber Board enhanced the production of natural rubber. RPS has provided a common platform for knowledge transfer as well as encouraged co-operative spirit and also provided quality and expert help at their finger tip as and when required. [2]

Kharwal *et al.* (2018) accessed the role of RPSs in income enhancement of small rubber farmers in Kerala. The authors examined the cost of cultivation and returns. The results showed that the formation of RPS improved the socio-economic status of small farmers. The study found that the members of RPS got benefits in terms of lesser cost of cultivation by 14% compared to non-members. And the gross return was found around 10% higher for RPS members. [3]

Nath (2010) in his book 'Economics of Rubber Plantation - A Study in Northeast India' focused on the rubber plantation development in Goalpara District in Assam. In the study the author has made a comparative study on the trends of area, production and productivity of rubber cultivation of Goalpara District with other non- traditional areas and other traditional areas. He also scrutinized the institutional composition of rubber production in terms of size of holdings and organisation of production. Supply Response Model was used to study to examine the economics of rubber plantations at the firm level. He estimated the cost, revenue, net business income and return on investment to identify the profitability of cultivation. He found that strong institutional support eventually resulted in increase in new farmers and higher participation of growers. [4]

3. Problem Definition.

Performance evaluation of an organization is normally identified with how well an organization can use its assets, shareholder's equity and liability, revenue and expenses. The process of critical evaluation of the financial information contained in the financial statements in order to understand and make decisions regarding the operations of the firm is called "Financial Statement Analysis". According to John Myer, "Financial Statement Analysis is largely a study of relationship among the various financial factors in a business as disclosed by single set of statements and a study of the trend of these factors as shown in a series of statements". It is basically a relationship study among various financial facts and figures given in financial statements, and the interpretation thereof to gain an insight into the profitability and operational efficiency of the firm to assess its financial health and future prospects.

Profitability is an indication of the efficiency with which the operations of the business are carried out. A lower profitability may arise due to lack of control over the expense. Profitability ratios can be used to know whether institution is making enough operational profit from their assets. The present study is a modest attempt to assess the profitability of RPS Poothrikka in Ernakulam district of Kerala, India. In this study, profitability is calculated in relation to sales.

4. Methodology

The study was conducted in Ernakulam district of Kerala state, India during June-July 2020. The data were collected from the annual reports of the society from the year 2008-9 to 2017-18. The analysis of the collected data was conducted with the help of statistical tool like financial ratios and CAGR.

4.1 Financial ratios

Sl.No	*Name of the ratio*	*Formula*
1.	Gross profit ratio	$\frac{\text{Gross profit}}{\text{Net sales}} * 100$
2.	Net profit ratio	$\frac{\text{Net profit /loss}}{\text{Net sales}} * 100$
3.	Direct expense ratio	$\frac{\text{Direct expenses}}{\text{Net sales}} *100$
4.	Overhead expense ratio	$\frac{\text{Indirect expenses}}{\text{Net sales}} *100$

4.2 Compound Annual Growth Rate (CAGR)

Compound annual growth rate (CAGR) is the rate of return that would be required for an investment to grow from its initial value to its end value, assuming the profits were reinvested at the end of each year of the investment's lifespan.

$$\text{CAGR} = \left(\frac{\text{End value}}{\text{Initial value}}\right)^{\frac{1}{\text{Number of years}}} - 1 \quad * 100$$

5. Results and Discussion

5.1 Gross profit ratio

Gross profit ratio measures the relationship between gross profit and net sales revenue. It is a tool to evaluate the operational performance of the business. There is no norm or standard to interpret gross profit ratio (GP ratio). Generally, a higher ratio is considered better.
Gross profit ratio is calculated by using the formula,

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Net sales}}$$

When gross profit ratio is expressed in percentage form, it is known as gross profit margin or gross profit percentage. The formula of gross profit margin or percentage is explained below,

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Net sales}} * 100$$

Table 2: Gross profit ratio of RPS from 2008-09 to 2017-18
(Amt. in Rs. Lakhs)

Year	*Gross profit/loss*	*Net sales*	*Ratio*
2008-09	3.88	116.67	3.33
2009-10	5.25	145.59	3.61
2010-11	6.03	200.38	3.01
2011-12	-1.93	239.28	-0.81
2012-13	20.79	182.93	11.37
2013-14	15.47	155.48	9.95
2014-15	7.82	86.41	9.05
2015-16	7.04	78.97	8.91
2016-17	13.74	149.15	9.21
2017-18	5.61	150.66	3.72
CAGR	4.18	2.88	

Source: Audit reports of RPS Poothrikka from 2008-09 to 2017-18

Table 2 exhibits the gross profit ratio of RPS Poothrikka. The ratio is positive for all the years except the year 2011-12 since the society doesn't make any profit due to the fire accident occurred in the preceding year. It is clear from the table that the CAGR of gross profit was 4.18. Despite of the fluctuating ratios which ranges between -0.81 and 11.37, the positive figures picturised a considerable growth of the society from 2008-09 to 2017-18.

5.2 Net Profit Ratio

Net profit ratio measures the firm's overall profitability and efficiency of the management. It measures the relationship between net profit and net sales. The net profit is arrived after deducting administration, selling and distribution expenses from gross profit. Higher the ratio better is the profitability.
Net profit ratio is calculated as,

$$\text{Net Profit Ratio} = \frac{\text{Net profit/loss}}{\text{Net sales}} * 100$$

Table 3: Net profit ratio of RPS from 2008-09 to 2017-18 (Amt. in Rs. Lakhs)

Year	*Net profit/loss*	*Net sales*	*Ratio*
2008-09	0.04	116.67	0.03
2009-10	1.50	145.59	1.03
2010-11	-0.29	200.38	-0.14
2011-12	-6.36	239.28	-2.66
2012-13	11.40	182.93	6.23
2013-14	6.48	155.48	4.17
2014-15	2.24	86.41	2.59
2015-16	-0.54	78.97	-0.68
2016-17	5.70	149.15	3.82
2017-18	-4.19	150.66	-2.78
CAGR	-267.67	2.88	

Source: Audit reports of RPS Poothrikka from 2008-09 to 2017-18

Table 3 presents the net profit ratio for 10 years which ranges between -0.14 and 6.23. The years showing a negative ratio had excess of expenditure over income thus faced net loss in the corresponding years. Though the society had loss, the management had tried to manage the balance by increasing the sales. Further, it is clear from the table that the CAGR of net profit are -267.67. The negative CAGR for net profit is because of the net loss during the last year.

5.3 Direct expense ratio

Direct expense ratio is computed to show the relationship between direct expenses and net sales. The lower ratio signifies more profitability and higher ratio means less profitability. Direct expense ratio is calculated as,

$$\frac{\text{Direct expenses}}{\text{Net sales}} * 100$$

Table 4: Direct expense ratio of RPS from 2008-09 to 2017-18 (Amt. in Rs. Lakhs)

Year	*Direct expenses*	*Net sales*	*Ratio*
2008-09	3.88	116.67	3.33
2009-10	3.80	145.59	2.61
2010-11	6.92	200.38	3.45
2011-12	11.16	239.28	4.66
2012-13	9.64	182.93	5.27
2013-14	6.83	155.48	4.39
2014-15	6.04	86.41	6.99
2015-16	7.40	78.97	9.37
2016-17	11.33	149.15	7.60
2017-18	11.84	150.66	7.86
CAGR	13.20	2.88	

Source: Audit reports of RPS Poothrikka from 2008-09 to 2017-18

Table 4 explains the direct expense ratio from the year 2008-09 to 2017-18. It is clear from the figure that the ratio is showing an increasing trend throughout the study period but maintained below 10 which signifies the profitability of RPS Poothrikka. The CAGR computed for direct expenses was 13.20 respectively.

5.4 Overhead expense ratio

Overhead expense ratio indicates the relationship between indirect expenses and sales. The low ratio indicates that the firm is minimizing its business expenses and hence higher profitability.
Overhead expense ratio is calculated as,

$$\frac{\text{Indirect expenses}}{\text{Net sales}} * 100$$

Table 5: Overhead expense ratio of RPS from 2008-09 to 2017-18 (Amt. in Rs. Lakhs)

Year	*Indirect expenses*	*Net sales*	*Ratio*
2008-09	4.44	116.67	3.81
2009-10	5.44	145.59	3.74
2010-11	0.92	200.38	0.46
2011-12	3.88	239.28	1.62
2012-13	3.92	182.93	2.14
2013-14	6.83	155.48	4.39
2014-15	6.04	86.41	6.99
2015-16	7.40	78.97	9.37
2016-17	11.33	149.15	7.60
2017-18	11.84	150.66	7.86
CAGR	11.51	2.88	

Source: Audit reports of RPS Poothrikka from 2008-09 to 2017-18

Table 5 shows the overhead expense ratio from the year 2008-09 to 2017-18. It is obvious from the figure that the ratio is showing an increasing trend throughout the study period but maintained a low ratio which indicated the profitability of the society. The CAGR computed for indirect expenses was 11.51.

6. Conclusion

The gross profit ratio was analysed as positive for all the years except the year 2011-12 due to the fire accident occurred in 2010. The CAGR of gross profit was found to be 4.18. For some years the net profit ratio ended up with negative value since the society had excess of expenditure

over income (net loss). Further, the CAGR of net profit calculated was -267.67. Direct expense ratio showed an increasing trend throughout the study period but maintained below 10 which signified the profitability of RPS Poothrikka. The CAGR computed for direct expenses was 13.20 respectively. The overhead expense ratio raged between 0.46 and 9.37.

The analyses gave the outcome that all the 4 ratios considered under study was in favour of society and hence concluded that RPS Poothrikka maintained good profitability.

7. Future Scope

Due to constrain of time, resources and COVID-19 pandemic outbreak, the study was confined to one RPS in Ernakulam district. Further, the study enabled to examine the profitability of only selected RPS. The Executive Committee Members of the society will have a better understanding of the various indicators of financial performance of RPS which in turn will help them in prudential decision making for improving financial viability and sustainability of the same. Only simple statistical techniques were used for the study. And also the ratio analysis was limited to certain selected financial ratios.

The future researchers can conduct related studies in other districts/states and also can do a comparative study which will provide clarity on the profitability and performance of RPS in different districts/states.

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Author Profile

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