

THE IMPACT OF FINANCIAL PERFORMANCE ON THE SUSTAINABILITY AND FUNCTIONING OF FISHERWOMEN COOPERATIVE SOCIETIES IN VISAKHAPATNAM DISTRICT, ANDHRA PRADESH

Umarani Batchu^{1*} Prof. B. Lilly Grace Eunice²

^{1*}Research Scholar, Department of Economics, College of Arts & Commerce, Andhra University, A.P
Email: umarani.b1986@gmail.com

²Research Director, Department of Economics, College of Arts & Commerce, Andhra University, A.P.
Email: lillygrace@gmail.com

***Corresponding author:** Umarani Batchu

Research Scholar, Department of Economics, College of Arts & Commerce, Andhra University, A.P
Email: umarani.b1986@gmail.com

Abstract:

This study investigates the influence of financial performance on the sustainability and operational efficiency of fisherwomen cooperative societies in the Visakhapatnam district of Andhra Pradesh. Fisherwomen cooperative societies play a crucial role in empowering women, enhancing their socio-economic status, and promoting community development in coastal regions. However, their sustainability and functionality are significantly impacted by their financial health, which, in turn, affects their ability to provide essential services to their members.

The research employs a mixed-method approach, combining quantitative financial analysis with qualitative interviews to comprehensively assess the financial performance of these cooperatives. Financial performance indicators such as revenue growth, profit margins, liquidity ratios, and debt levels are analyzed to understand their impact on the cooperatives' ability to sustain operations and fulfill their socio-economic objectives.

Data for the study is collected from various fisherwomen cooperative societies, annual reports, and interviews with key stakeholders. This multi-faceted approach ensures a holistic understanding of the financial dynamics at play.

Keywords: Financial performance, sustainability, fisherwomen cooperative societies, Visakhapatnam, Andhra Pradesh, socio-economic development, financial management.

Introduction

The fisheries sector in India, particularly in coastal regions like Andhra Pradesh, is a crucial source of livelihoods for millions of people. Within this sector, fisherwomen play a significant yet often underappreciated role, actively participating in various stages of the fishing value chain. To empower these women and promote sustainable fishing practices, the establishment of fisherwomen cooperative societies has emerged as a promising strategy.

Visakhapatnam District, located along the eastern coast of Andhra Pradesh, is renowned for its rich maritime heritage and vibrant fishing industry. In recent years, the district has seen the formation and growth of several fisherwomen cooperative societies aimed at enhancing the socio-economic status of women involved in fisheries activities. These cooperatives serve as platforms for collective action, enabling women to pool resources, access markets, and advocate for their rights within the fisheries sector.

Despite their potential, fisherwomen cooperative societies in Visakhapatnam District face numerous challenges that hinder their effectiveness and sustainability. Issues such as limited access to credit, inadequate infrastructure, gender disparities in decision-making, and environmental degradation present significant obstacles to achieving their goals. Understanding the dynamics of these cooperative societies, including their organizational structures, impacts, challenges, and opportunities, is essential for devising targeted interventions and policy initiatives to support their growth and development.

Background of the study

Visakhapatnam District, situated in the coastal region of Andhra Pradesh, is renowned for its vibrant fisheries sector, where fisherwomen play a crucial role in the workforce. Despite their essential contributions, these women often encounter socio-economic challenges, such as limited access to resources and marginalization within fishing communities. This study aims financial performance on the sustainability and functioning of FWCSs.

Objective of the study

To examine the Impact of Financial Performance on the Sustainability and Functioning of Fisherwomen Cooperative Societies in Visakhapatnam District, Andhra Pradesh

Review of Literature

1. **Sengupta et al. (2012):** Sengupta and colleagues, in their 2012 study, made several noteworthy observations regarding the Mudiali Fishermen Cooperative Society in Kolkata, West Bengal. They noted that all the ponds and tanks within the cooperative society were maintained in a manner that created an environment highly suitable for aquaculture practices to maintain the physicochemical properties of the water in the ponds and tanks remained unaffected in all seasons. This resilience was likely due to the efficient purification systems employed by the Mudiali Fishermen Cooperative Society.

The researchers also observed that the cooperative society had experienced occasional incidents of fish kills in the past, which had been a significant setback for the impoverished fishermen. Another major concern for the society was its inability to attain a favorable grade in audit classification. This issue somewhat undermined the society's achievements. To address these concerns and enhance their operations, it was recommended that the society should consider hiring qualified scientific advisors and efficient auditors who could provide guidance to the fishermen and improve their accounting practices. This move could significantly benefit the cooperative and its members.

2. **Kanaga and Sivasankar, (2015)** investigated the challenges faced by fishermen in Therespuram engaged in marine fisheries. Their findings highlighted several obstacles, including high fishing expenses, co-worker issues, and operational inefficiencies. During lean periods, fishermen struggled with poverty, unemployment, and limited access to credit, often due to debts incurred from acquiring fishing vessels and equipment. The study suggests government intervention to provide alternative employment opportunities, alleviate fishing pressures, reduce poverty, and address financial burdens. Establishing effective cooperative societies and fishermen's associations is recommended to improve working conditions and foster a harmonious environment for fishermen.

3. **Chandrashekar (2014),** studied that there was a positive and stable growth of fisheries cooperatives in India over a period of seven years i.e. 2000-01 to 2009-2010. Though there was little variation in the growth rate of membership, it was also growing positively. This clearly indicated that the public were interested in these types of societies. The National Cooperative Development Corporation had revised its pattern of assistance to fisheries cooperatives. Poverty in fishing communities in the country necessitates liberalisation of norms for fisheries cooperatives and provided support through low interest rates. There was a need to coordinate the Government of India and State Governments to achieve continued growth in the fishery cooperative sector which was so vital to the economy and poor people.

Objective

1. To determine the effect of financial performance on the sustainability and functioning of FWCSs.

Research Methodology

Both primary and secondary data used in this study. Data collected through surveys conducted among fisherwomen in selected sample villages. Secondary data gathered from various sources, including apex-level federations, the Directorate of Fisheries, district-level Fishery Cooperative Federation, and specific Fishery Women Cooperative Societies in Visakhapatnam district.

Study Area: The research focuses on Anakapalli district of Andhra Pradesh, encompassing six mandals: Anakapally, Atchuthapuram, Mungapaka, Chodavaram, Rambilli, and K. Kotapadu. One village was selected from each mandal for detailed investigation.

Sample Size: Sample collected by using purposive sample technique. The total sample size comprised 300 fisherwomen, One village was chosen from each mandal in the district, resulting in a total of six villages for data collection. The selected villages were: Mettapalem (Anakapally mandal), Pudimadaka (Atchuthapuram mandal), Vadrappalli (Mungapaka mandal), Laxmipuram (Chodavaram mandal), Kothapatnam (Rambilli mandal), and Jjjanggayacheruvu (K. Kotapadu mandal). In each village, 50 respondents who were members of fisherwomen cooperatives were purposively selected for inclusion in the study.

Data Analysis: The collected data analysed using simple statistical tools such as averages, percentages, F Test, Least and Least Square Difference (LSD).

DATA ANALYSIS AND INTERPRETATION

Table 1 Showing F-Test for FWCSS in Visakhapatnam with Respect to their Monthly Income

Monthly Income	Frequ-ency	Percent-age	Mean	S.D	Sum of Squares	df	Mean squares	F-value	LOS
----------------	------------	-------------	------	-----	----------------	----	--------------	---------	-----

Below 10K	38	12.7	71.578	3.753	1424.935	2			
10K - 20K	165	55.0	71.448	3.832			712.466		000 (S**)
Above 20K	97	32.3	66.814	4.044	4500.735	297		47.105	
Total	300	100.0	69.966	4.451	5925.667	299	15.154		

Note: S** = Significant at 0.01 level.

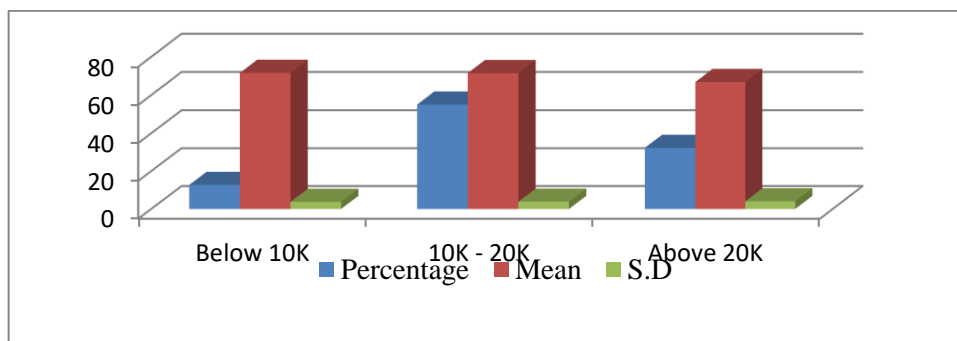


Figure – 1. Significant difference in Fisher women cooperative societies in Visakhapatnam with respect to their Monthly Income

Table 1 reveals that the mean perceptual of Fisher women cooperative societies in Visakhapatnam with respect to their Monthly Income. 10K –20K Monthly Income women (55 per cent) were slightly higher than the percentage of above 20K Monthly Income women (32.3 per cent) and below 10K Monthly Income women (12.7 per cent). Sum of squares between groups 1424.932, with in groups 4500.735. Degrees of freedom value between groups 2, within groups 297. Mean squares between groups 712.466 and within groups 15.154 and the standard deviations for all age group women were 69.966 respectively. The derived = F'-value was 47.015 and the = p' – value was 0.000, which is significant at 0.01 levels. It shows that Below 10K Monthly Income, 10K – 20K Monthly Income and above 20K Monthly Income women differ significantly in their Fisher women cooperative societies in Visakhapatnam. Hence the null hypothesis is rejected.

Finding: Hence it can be concluded that there is significant difference between different categories of Monthly Income wise women in respect to their Fisherwomen cooperative societies in Visakhapatnam.

Table 2 Showing Least Square Difference (LSD) Values with Regard to FWCS in Visakhapatnam with Respect to their Monthly Income

Monthly Income	Below10K	10K- 20K	Above20K
Below10K		-.13046	-4.76451*
10K- 20K	.13046		-4.63405*
Above20K	4.76451*	4.63405*	

Note: * = Significant at 0.01 level.

From the Table 2 it can be found that the there is a significant difference at 0.01 level, between above 20K Monthly Income women and below 10K Monthly Income women in FWCSs. Similarly, there is a significant difference at 0.01 level, between above 20K Monthly Income women and 10K – 20K Monthly Income women in FWCSs. Further above 20K Monthly Income women Fisher women cooperative societies in Visakhapatnam is better than below 10K and 10K –20K Monthly Income women in FWCSs.

However, there is no significance of difference between Below 10K Monthly Income women and 10K – 20K Monthly Income women in their Fisher women cooperative societies in Visakhapatnam.

Table 3 Showing F- Test for Opinions of the Respondents on the FWCS in Visakhapatnam with Respect to their Monthly Income

Monthly Income	Frequ-ency	Percent-age	Mean	S.D	Sum of Squares	df	Mean squares	F-value	LOS
Below 10K	38	12.7	35.157	1.7786	127.537	2			
10K - 20K	165	55.0	34.080	1.8286			63.768		
Above 20K	97	32.3	33.494	2.8472	1443.700	297		13.119	000

							4.861		(S**)
Total	300	100.0	34.423	2.292	1571.237	299	15.154		

Note: S** = Significant at 0.01 level.

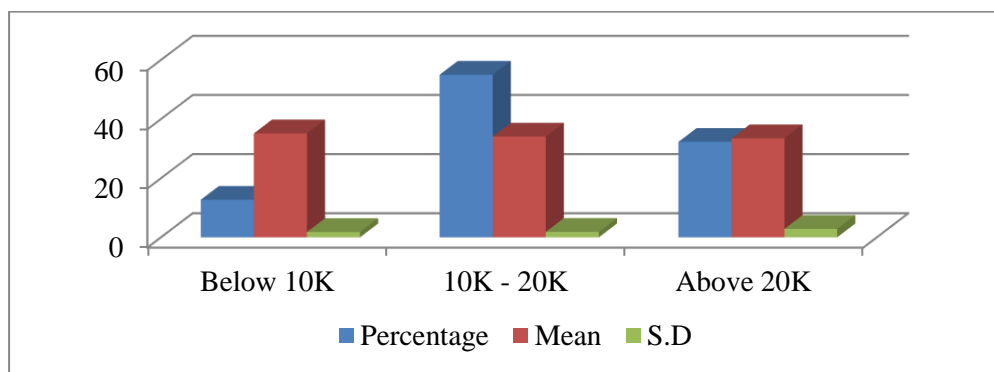


Figure – 2 Significant differences in Opinions of the Respondents on the FWCs in Visakhapatnam with respect to their Monthly Income

Table -3 reveals that the mean perceptual of Opinions of the Respondents on the FWCs in Visakhapatnam with respect to their Monthly Income. 10K – 20K Monthly Income women (55 per cent) were slightly higher than the percentage of above 20K Monthly Income women (32.3 per cent) and Below 10K Monthly Income women (12.7 per cent). Sum of squares between groups 127.537, within groups 1443.700. Degrees of freedom value between groups 2, within groups 297. Mean squares between groups 63.768 and within groups 4.861 and the standard deviations for all age group women were 2.2923 respectively. The derived = F'-value was 13.119 and the = p' -value was 0.000, which is significant at 0.01 levels. It shows that Below 10K Monthly Income, 10K – 20K Monthly Income and above 20K Monthly Income women differ significantly in their Opinions of the Respondents on the FWCs in Visakhapatnam. Hence the null hypothesis is rejected.

Finding: Hence it can be concluded that there is significant difference between different categories of Monthly Income wise women in respect to their Opinions of the Respondents on the FWCs in Visakhapatnam.

Table-4 Showing Least Square Difference (LSD) Values with Regard to Opinions of the Respondents on the FWCS in Visakhapatnam with Respect to their Monthly Income

Monthly Income	Below 10K	10K- 20K	Above 20K
Below10K		-.35789	-1.66305*
10K- 20K	.35789		-1.30515*
Above 20K	1.66305*	1.30515*	

Note: * = Significant at 0.01 level.

From the Table 4, it can be found that there is a significant difference at 0.01 level, between above 20K Monthly Income women and Below 10K Monthly Income women Opinions of the Respondents on the FWCs. Similarly, there is a significant difference at 0.01 level, between above 20K Monthly Income women and 10K – 20K Monthly Income women Opinions of the Respondents on the FWCs. Further above 20K Monthly Income women Opinions of the Respondents on the FWCs in Visakhapatnam is better than below10K and 10K–20K Monthly Income women.

However, there is no significance of difference between Below 10K Monthly Income women and 10K – 20K Monthly Income women in their Opinions of the Respondents on the FWCs in Visakhapatnam.

Table– 5 Showing F- Test for Participation and Involvement in FWCSS Visakhapatnam with Respect to their Monthly Income

Monthly Income	Frequ-ency	Percent-age	Mean	S.D	Sum of Squares	Df	Mean squares	F-value	LOS
Below 10K	38	12.7	21.00	1.9452	174.501	2			
10K - 20K	165	55.0	20.218	1.9161			87.250		
Above 20K	97	32.3	18.824	1.8541	1072.166	297		24.169	000 (S**)

Total	300	100.0	19.866	2.0419	1246.667	299	3.610		
--------------	------------	--------------	---------------	---------------	-----------------	------------	--------------	--	--

Note: S** = Significant at 0.01 level.

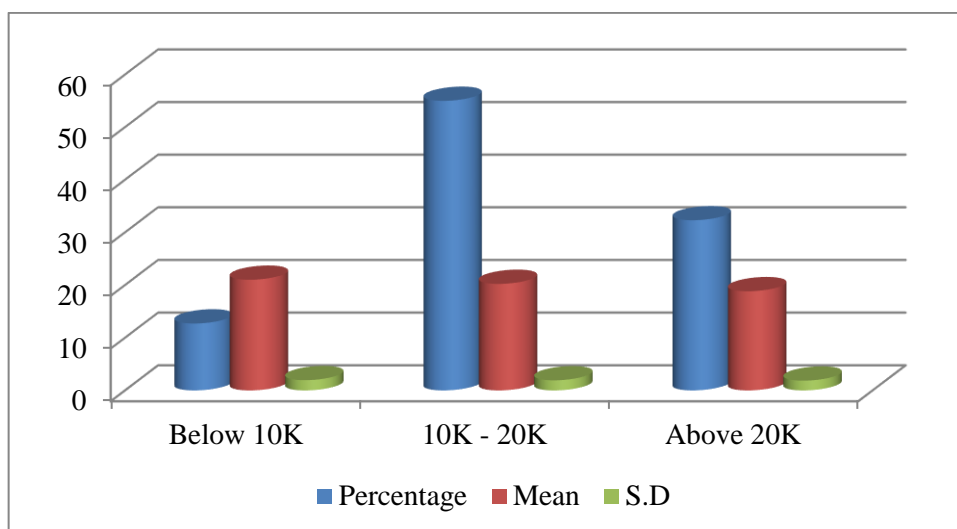


Figure – 3. Significant difference in Participation and Involvement in FWCSs in Visakhapatnam with respect to their Monthly Income

Table -5 reveals that the mean perceptual of Participation and Involvement in FWCSs in Visakhapatnam with respect to their Monthly Income.10K–20K Monthly Income women (55 per cent) were slightly higher than the percentage of above 20K Monthly Income women (32.3 per cent) and Below 10K Monthly Income women (12.7 per cent). Sum of squares between groups 174.501, within groups 1072.166. Degrees of freedom value between groups 2, within groups 297. Mean squares between groups 87.250 and within groups 3.610 and the standard deviations for all age group women were 2.0419 respectively. The derived = F'- value was 24.169 and the = p' – value was 0.000, which is significant at 0.01 levels. It shows thatbelow10K Monthly Income,10K – 20K Monthly Income and above 20K Monthly Income women differ significantly in their Participation and Involvement in FWCSs in Visakhapatnam. Hence the null hypothesis is rejected.

Finding: Hence it can be concluded that there is significant difference between different categories of Monthly Income wise women in respect to their Participation and Involvement in FWCSs in Visakhapatnam.

Table-6 Showing Least Square Difference (LSD) Values With Regard To Participation And Involvement In FWCSS In Visakhapatnam With Respect To Their Monthly Income

Monthly Income	Below 10K	10K- 20K	Above 20K
Below 10K		-.78182*	-2.17526*
10K- 20K	.78182*		-1.39344*
Above 20K	2.17526*	1.39344*	

Note: * = Significant at 0.01 level.

From the Table 6 it can be found that the there is a significant difference at 0.01 level, between above 20K Monthly Income women and below 10K Monthly Income women Participation and Involvement in FWCSs. Similarly, there is a significant difference at 0.01 level, between above 20K Monthly Income women and 10K – 20K Monthly Income women Participation and Involvement in FWCSs. Similarly, there is a significant difference at 0.01 level, between 10K – 20K Monthly Income women and below 10K Monthly Income women Participation and Involvement in FWCSs. Further above 20K Monthly Income Women Participation and Involvement in FWCSs in Visakhapatnam is better than below 10K and 10K – 20K Monthly Income women. Similarly, 10K- 20K Monthly Income women Participation and Involvement in FWCSs in Visakhapatnam is better than below 10K Monthly Income women.

Table– 7 Showing F- Test for Member of Fisher Women Co- Operative Societies FWCSS in Visakhapatnam with Respect to their Monthly Income

Monthly Income	Frequ-ency	Percent-age	Mean	S.D	Sum of Squares	df	Mean squares	F- value	LOS
----------------	------------	-------------	------	-----	----------------	----	--------------	----------	-----

Below 10K	38	12.7	15.421	2.4454	231.678	2			
10K - 20K	165	55.0	16.430	1.8748			115.839		
Above 20K	97	32.3	14.494	1.6273	1051.959	297		32.705	000 (S**)
Total	300	100.0	15.676	2.0719	1283.637	299	3.542		

Note: S** = Significant at 0.01 level.

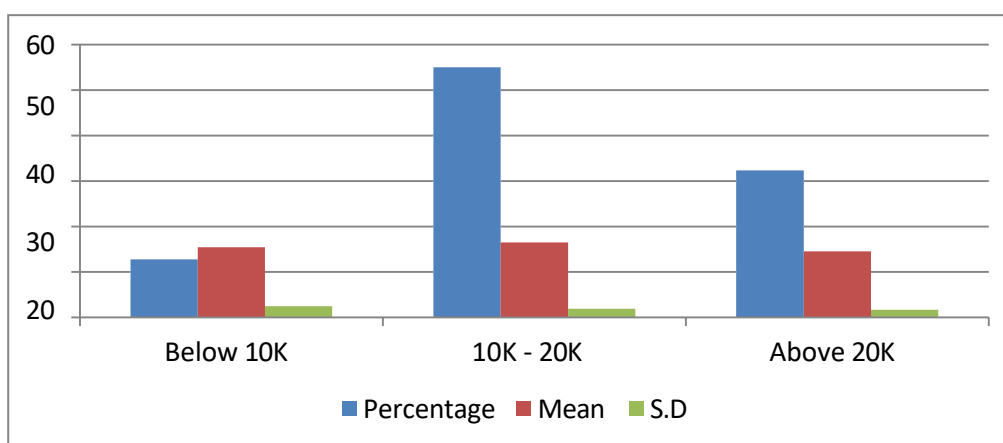


Figure – 4. Significant difference in Members of Fisher women co- operative societies in FWCSs in Visakhapatnam with respect to their Monthly Income

Table - 7 reveals that the mean perceptual of Member of Fisher women co- operative societies in FWCSs in Visakhapatnam with respect to their Monthly Income. 10K–20K Monthly Income women (55 per cent) were slightly higher than the percentage of above 20K Monthly Income women (32.3 per cent) and Below 10K Monthly Income women (12.7 per cent). Sum of squares between groups 231.678, within groups 1051.959. Degrees of freedom value between groups 2, within groups 297. Mean squares between groups 115.839 and within groups 3.542 and the standard deviations for all age group women were 2.0719 respectively. The derived F' - value was 32.705 and the p' - value was 0.000, which is significant at 0.01 levels. It shows that Below 10K Monthly Income, 10K - 20K Monthly Income and above 20K Monthly Income women differ significantly in their Member of Fisher women co- operative societies in FWCSs in Visakhapatnam. Hence the null hypothesis is rejected.

Finding: Hence it can be concluded that there is significant difference between different categories of Monthly Income wise women in respect to their Member of Fisher women co- operative societies in FWCSs in Visakhapatnam.

Table-8 Showing Least Square Difference (LSD) Values with Regard to Member of Fisher Women Co-Operative Societies in FWCSs in Visakhapatnam with Respect to their Monthly Income

Monthly Income	Below 10K	10K- 20K	Above 20K
Below 10K		1.00925*	-.92621*
10K- 20K	-1.00925*		-1.93546*
Above 20K	.92621*	1.93546*	

Note: * = Significant at 0.01 level.

From the Table 8 it can be found that there is a significant difference at 0.01 level, between above 20K Monthly Income women and Below 10K Monthly Income women Member of Fisher women co- operative societies in FWCSs. Similarly, there is a significant difference at 0.01 level, between above 20K Monthly Income women and 10K-20K Monthly Income women Member of Fisher women co- operative societies in FWCSs. Similarly, there is a significant difference at 0.01 level, between 10K - 20K Monthly Income women and Below 10K Monthly Income women Member of Fisher women co- operative societies in FWCSs. Further above 20K Monthly Income women Member of Fisher women co- operative societies in FWCSs in Visakhapatnam is better than Below 10K and 10K - 20K Monthly Income women. Similarly, below 10K Monthly Income women Member of Fisher women co- operative societies in FWCSs in Visakhapatnam is better than 10K- 20K Monthly Income women.

Findings

1. Income Distribution and Perception of FWCS:

- i. Women with a monthly income of 10K-20K form the largest group (55%), followed by those earning above 20K (32.3%) and below 10K (12.7%).
- ii. There is a significant difference in the perceptions of fisherwomen cooperative societies (FWCS) among these income groups, with higher income groups showing better perceptions.

2. Opinions on FWCS:

- i. Significant differences exist in the opinions of women from different income categories regarding FWCS.
- ii. Women earning above 20K have more favorable opinions about FWCS compared to those earning below 10K and 10K-20K.
- iii. There is no significant difference in opinions between women earning below 10K and those earning 10K-20K.

3. Participation and Involvement:

- i. Participation and involvement in FWCS vary significantly among different income groups.
- ii. Women with higher incomes (above 20K) are more involved in FWCS activities compared to those with lower incomes (below 10K and 10K-20K).
- iii. Women earning 10K-20K also show better participation and involvement than those earning below 10K.

4. Membership in FWCS:

- i. There are significant differences in FWCS membership among women of different income levels.
- ii. Higher income women (above 20K) have a higher membership rate in FWCS compared to those earning below 10K and 10K-20K.
- iii. Women earning below 10K have better membership rates than those earning 10K-20K, but not as high as those earning above 20K.

Conclusion

The study on the impact of financial performance on the sustainability and functioning of fisherwomen cooperative societies (FWCS) in Visakhapatnam district, Andhra Pradesh, reveals significant insights into the correlation between income levels and cooperative engagement. Women with higher monthly incomes exhibit more favorable perceptions, stronger opinions, increased participation, and higher membership rates in FWCS compared to their lower-income counterparts. Specifically, women earning above 20K per month are notably more active and involved in FWCS activities, indicating that financial stability enhances their ability to contribute effectively to the cooperatives. Conversely, women earning below 10K per month demonstrate lower levels of engagement and satisfaction with FWCS, suggesting that financial constraints may hinder their active participation and the overall efficacy of the cooperatives.

These findings underscore the critical role of financial performance in determining the success and sustainability of fisherwomen cooperative societies. Improved financial health enables cooperatives to provide better services, support, and opportunities for their members, thereby fostering greater involvement and satisfaction. Consequently, targeted financial interventions and support mechanisms are essential to bolster the financial stability of FWCS, ensuring their long-term sustainability and enhanced functioning. By addressing the financial challenges faced by lower-income members, cooperatives can create a more inclusive and supportive environment, ultimately contributing to the socio-economic upliftment of fisherwomen in Visakhapatnam.

References

1. Annual Report Department of Animal Husbandry, D. &. (2023-24). Annual Report. New Delhi: Ministry of Agriculture, Government of India.
2. Chandrashekhar, B. S 2014. Fishery Co-operative Societies in India: Problems and Prospects, *Cooperation*, 7(3): 92-94.
3. Department of Animal Husbandry, D. &. (August, 2014). Handbook on Fisheries Statistics. Department of Animal Husbandry, Dairying & Fisheries. New Delhi: Ministry of Agriculture, Government of India.
4. Kanaga, V and Sivasankar, P (2015) Fishermen constraints in marine fisheries at Therespuram – An analysis, *International Journal of Agricultural Science and Research (IJASR)* ISSN (P): 2250-0057; ISSN (E): 2321-0087 Vol. 5, Issue 2, Apr 2015, 105-110.
5. Ministry of Agriculture & Farmers' Welfare, G. o. (2014). Handbook of Fisheries Statistics. New Delhi: Department of Animal Husbandry, Dairying and Fisheries.
6. Nithya.M, Sujathkumar N.V, (2015), Socio economic status of fisherfolks of Kanyakumari and Thoothukudi districts, Tamil Nadu, India – www.scribd.com.
7. Plamoottil M, Win Tp. On some destructive fishing methods of Central Travancore of Kerala, India. *Journal of Zoological and Bioscience Research*. 2017;4(1):6-12.
8. Sengupta, A., Rana, T., Das, B. and Bhattacharjee, S. 2012. Wastewater Aquaculture by the Mudialy Fisherman's Cooperative Society in Kolkata, West Bengal: An Example of Sustainable Development, *Journal of Applied Aquaculture*, 24:137–146.