CHAPTER VI
SUMMARY OF FINDINGS, SUGGESTIONS
RECOMMENDATIONS AND CONCLUSION

6. Introduction

This chapter is derived to present (i) Findings of the study (ii) Suggestions of the study (iii) Recommendations (iv) Conclusion of the study. (v) Scope for Further Research. The evaluation of the result obtained after the analysis of data is discussed in this section.

6.1 Summary of Findings

6.1.1 General findings related to dairy development in world

1. The world milk production has increased from 590 million tonnes in the year 2001 to 805 million tonnes in 2013 and the average stands at 687 million tonnes.

2. Developed countries milk production has gradually increased from 352 million tonnes in 1981 to 376 million tonnes in 2013 and it is compound growth rate is 6.82 percent. Milk production in developing countries has increased from 118 million tonnes in 1981 to 404 million tonnes in 2013 and it is compound growth rate is 242.37 percent.

3. World cow milk production by Top ten countries from 2002-2013. Among the selected countries the United States stands first in the production of cow milk followed by India, china, Russia, Germany and others. It could be seen in the table the world cow milk production has increased from 511 million tonnes in the year 2002 to 626 million tonnes in 2013, the USA was the largest cow milk producer in the world in 2013 accounting for 14.6 percent of world production, producing nearly 91 million tonnes in 2013.
4. World top ten countries buffalo milk production, India is the largest buffalo milk producer in followed by china, Myanmar and Iran. World milk production from 2002 to 2012 increased by 74.1 percent.

5. The dairy per capita milk consumption is high in Finland they have consumed 361.19, the next majority in Sweden. India occupies 4th position in per capita consumption.

6. The world's largest exporter of dairy products is New Zealand.

6.1.2 General findings related to dairy development in India and Tamil nadu

1. Operation Flood is a unique approach to dairy development. During the 1970s, dairy commodity surpluses were building up in Europe and Dr Varghese Kurien, the founding chairman of NDDB, saw in those surpluses both a threat and an opportunity. The threat was massive exports of low-cost milk products to India, which, had it occurred, would have told the death-knell for India's staggering dairy industry.

2. The operation flood phase started in 1970 - 1996. The average milk production has increased from 2.56 million in 1970 to 10.99 million in the year 1985. Rural dairy production has increased from 2.79 million to 10.02 million in the year 1985 and the number of artificial insemination increased from 4.9 to 16.8 thousand centres during the operation flood phase I-III.

3. The milk producers registered the Kaira District Cooperative Milk Producers' Union, now popularly known as AMUL in 1946.

4. The national dairy development board (NDDB) was set up under the ministry of agriculture and irrigation, government of India in September 1965 under the Societies Registration act 1860.

5. In XI Plan, the centrally sponsored schemes -Animal Health and Disease Control and National Project for Livestock Development accounted for a major share of the outlay for animal husbandry.
6. The milk production of India has increased from 78.3 Lakh tonnes in 1999-2000 to 132.4 Lakh tonnes in 2012-13. Table further shows that the per capita availability of milk in 1999-2000 is 217 and it has increased to 298 in 2012-13.

7. As regards the milk productivity, number by exotic/crossbred cows’ and average yield per animal shows a substantial increase in productivity was observed in the year 2003 to 2013.

8. The number of non-descript/indigenous cows had increased from 30,998 thousand in 2003-04 to 38,638 thousand in 2012-2013. The average yield per animal had increase from 4.24 kg/per day in 2003-2004 to 4.80 kg/per day in 2012-2013 and the milk production has increased from 47,979 thousand tonnes in the year 2003 to 67,675 thousand tonnes in 2013.

9. Estimation of milk production by buffalo from 2003 to 2013. The number of animals had increased from 28389 thousand in 2003-04 to 31870 thousand in 2012-2013. The average yield per animal had increase from 1.92 kg/per day in 2003-2004 to 2.36 kg/per day in 2012-2013 and the milk production has increased from 19358 thousand tonnes in the year 2003 to 27421 thousand tonnes in 2013.

10. In India, a maximum number of co-operative societies in Uttar Pradesh, Maharashtra and Rajasthan. Gujarat, Karnataka followed by Tamil nadu. A maximum milk procurement states are Karnataka, Maharashtra and Rajasthan. A maximum milk producing states were Gujarat, Delhi and Karnataka during the year 1980-2013.

11. Regarding state wise the milk production, Uttar Pradesh, Rajasthan and Andhra Pradesh occupy the first three places since their respective milk production is 23329, 139445 and 12761 thousand tonnes respectively. The rate of increase in milk production in Uttar Pradesh from 2003-04 to 2012-13 is 46.32 percent, where as in
Rajasthan is 73.14 percent. In Andhra Pradesh the rate of 83.37 per cent increases in milk production.

12. Regarding Dairy Sector in Tamil Nadu the Federation procured milk through 6980 Primary Co-operative Societies in 2002-2003 which had increased to 11397 in 2012-2013. There are 1491 are New Milk Producers’ Co-operative Societies registered during 2012-2013. There are 22.86 lakhs Members in Milk Producers’ Co-operative Societies among them 4.25 lakhs are pouring members. There are 17 District milk producer Unions and one State Level Federation. They procured the milk 25.00 litres of milk per day through 530 rural milk collections routes and distributed the milk through 266 routes at District level. They have milk handling capacity Union dairies 18.76 in 2002-03 to 20.72 litres of milk per day in 2012-2013.

13. The milk production of the societies had witnessed a marginal improvement from 18.88 LLpd in 2002-03 to 30 LLpd in 2012-2013.

14. It could be seen that cattle population was found to be high in the districts of Villupuram nine percent of the total cattle population followed by Salem (6.5 percent) and Vellore (5.5 percent) in that order in 2003. The cattle population was found to be high in the districts of Thoothukudi (8.6 percent) and Thanjavur (6.4 percent) in 2007.

15. Buffalo’s population was found to be higher in the districts of Erode, Kancheepuram, Namakkal, Salem, Thiruvallur and Thoothukudi they put together accounted for 63.53 percent of the total population in 2007.

16. Cattle and Buffalo’s population was found to be the least in the Chennai and Nilgiris district for the year 2003 and 2007.

17. The dairy co-operative is Tamilnadu are functioning on a three-tier system similar to Anand Pattern of Co-operatives of Co-operatives. It operates at Village, District and
state level as milk producer’s Co-operative societies, District co-operatives milk producer’s Union and Tamilnadu Co-operative milk producers Federation limited respectively.

18. The number of co-operative societies had increased from 9231 in 2012 to 11397 in 2013. There are 4.19 lakh in 2012 to 4.25 lakh in 2013 milk producers now pouring milk to the societies. Among all the union wise societies, the maximum number of societies at Salem 1262 in 2010 to 1298 in 2013. The maximum number of pouring members at Vellore 9.13 lakh in 2012 and 2013.

19. Among 17 unions Salem district has became an account for 15.27 per cent of milk production in the state. Next to Erode district accounted for 13.74 per cent of total milk production in the State.

20. Among the 17 district co-operative milk producers’ union, namely Salem, Thiruchirappalli, and Vellore are the highest Milk procurement by District Co-operative Milk Producers’ Unions in Tamilnadu.

21. It could be seen that production of indigenous cow milk production increased from 13.75 lakh tonnes in 1997-1998 to 71.90 lakh tonnes in 2012-2013. However there had been a increase in the production of exotic crossbred cow form 10.57 lakh tonnes in 1997-1998 to 55.80 lakh tonnes in 2012-2013. As regards the buffalo’s milk productivity, substantial increase in productivity was observed 40.63 lakh tonnes in 1997-1998 to 70.04 lakh tonnes in 2012-2013.

23. It could be seen that production of Skimmed Milk Powder increased from 4690 (m/ t) in 2010-2011 to 10333 (m/t) in 2012-2013. However there had been a decrease in butter form 4244 (m/t) in 2010-2011 to 7079 (m/t) in 2012-2013. As regards the ghee productivity, substantial increase in productivity was observed 889 (m/ t) in 2010-2011 to 2196 (m/t) in 2012-2013.

24. In Tamil Nadu the milk product manufacturing factory is situated in Madurai district.

6.2 Major findings related to Aavin in Tirunelveli district

1. In Tirunelveli dairy, it is proposed to handle three kinds of milk namely, Toned milk, standardised milk and full cream milk for the supply of milk to the consumers.

2. The important by-products are Ghee, Mysorepa, Rose Milk, Milk cake, curd etc are being manufactured and marketed.

3. There are four chilling centres attached to this union and the chilling capacity of one of the chilling centre (CC) at Sankarankoil is 50000lpd. The other three chilling centre maintained by the union are at Valliyoor, Kovilpatti and Sathankulam with the chilling capacity of 20,000, 10,000 LPD respectively are controlled by the union.

4. Tirunelveli and Thoothukudi are the two ancient cities in south Tamilnadu have good Potential for liquid milk marketing.

6.3 Findings related to performance Evaluation of Tirunelveli Aavin

Trend analysis has been applied for the Milk Procurement in District Cooperative Milk Producers Unions from the year 2001 to 2012. It is revealed from the analysis that the trend is negative during the initial years under study 2002-03 and 2003-04 whereas the growth rate has been raising from the year 2004-2005 till 2009-2010 and after getting saturated during the years 2010-2011 and 2011-2012, it has raised to the tune of 53 percent in the year 2012-13. The year wise production of milk in the Tirunelveli Aavin
Financial Analysis

Gross Profit: It is observed that the years 2004-05 and 2005-06 are considered to be the peak years in the performance of Tirunelveli Aavin. The correlation shows a positive relationship over the years to the tune of 0.86 which is a good measure of improvement.

Net profit: The incremental change in the net profit shows that it is negative in most of the years. The correlation analysis shows a positive relation to the tune of 0.59 which is reasonably good. This may due to the high operating expenses over the period under study.

Proportion of Sales in the Production of Aavin: On an average the proportion of sales over the years stood at 68.74 percent and the correlation between milk production and milk sales is 0.41. As per exponential growth rate it is estimated that the growth rate is 0.63 percent for the production of milk and 6.93 percent for the sale of milk and the correlation coefficient determination is 0.102 and 0.80 respectively for the milk production and sales.

Current Ratio: Comparatively the trend analysis shows that the current assets have increased well to the extent of 293 percent whereas the growth of current liabilities is just 68 percent which result in 124 percent growth in case of current ratio over the years under study. The position is further depicted with the correlation analysis, though it is positive.
in all the three cases, the highest figure is recorded for the current assets (0.93), current liabilities (0.71) and then current ratio (0.86).

**Quick /Liquid/Acid Test Ratio:** The trend on liquid assets has increased enormously from 2008-09 to 2012-13 but the average growth rate is 380 percent which is due to the negative and slow increase in the years 2003-04 to 2005-06. The current liabilities have a steady growth with an average of 68 percent and it has a direct impact on the liquid ratio which has increased at an average rate of 177 percent.

**Debt-Equity Ratio:** On an average Shareholders’ Equity has raised to 23 percent, Debt to 38 percent and Debt Equity Ratio to 16 percent. The correlation is high for the Shareholders’ Equity (0.77), debt (0.66) and is negative for Debt Equity Ratio (-0.20). The Shareholders’ Equity has an exponential growth rate of 6.16 percent with correlation coefficient determination of 0.64, for the debt, the same is 4.47 percent and 0.46 and for the Debt Equity Ratio, it is 1.7 percent and 0.55.

**Proprietary Ratio:** The average growth rate for the Proprietary Funds is 23 percent, for total assets, it is 35 percent and for property Ratio, the growth has got a negative trend of 7 percent. The correlation is positive in case of Proprietary Funds (0.77) and total assets (0.80) and is negative for property Ratio (-0.87). The exponential growth rate for Proprietary Funds is of 6.16 percent with correlation coefficient determination of 0.64, for the total assets, the same is 7.93 percent and 0.71 and for the property Ratio, it is 1.8 percent and 0.76.

**Stock Turnover Ratio:** The correlation calculated in this respect is high for the average inventory (0.80), reasonable for Cost of Goods Sold (0.52) and is very meager for Inventory Turnover Ratio (0.004). However the inventory turnover ratio of Aavin
industry shows efficient management of inventory as the higher ratio says efficient business activities. The exponential growth rate is possible only in case of average inventory to the extent of 8.39 percent with the correlation determination of 0.70.

**Debtors Turnover Ratio:** The trend analysis in this connection reveals the fact that on an average the trend on sales have increased to 58 percent, debtors have decreased to 13 percent whereas the Debtors Turnover Ratio has recorded a growth rate of 111 percent. The correlation is also positive and high in both the cases of sales (0.97) and Debtors Turnover Ratio (0.82) whereas the same for the debtors is negative (-0.77).

**Debtors Collection Period:** The debtors’ collection period has been reduced drastically from 223.17 in the year 2004 to just 39.44 days in the year 2012 showing the quickness and the reduction of collection period. The correlation for the collection period is negative to the extent of -0.99 and the trend has lowered to the extent of 39 percent. The result concluded that the Collection period is improving i.e. days is decreasing and shows the payments of debtors are very prompt.

**Creditor’s Turnover Ratio:** The trend analysis shows that on an average the total purchases attained a growth rate of 67 percent, Creditors 7 percent and the creditors’ turnover ratio has got a growth rate of 72 percent. The correlation analysis shows a close relationship for the total purchases (0.98) over the years under study, moderate for creditors’ turnover ratio (0.57) and low for Creditors (0.28). It is inferred from the trend chart that creditors’ turnover ratio have recorded an exponential growth rate of 8.46 percent and a correlation determination of 0.32, the exponential growth rate total purchases is 10.03 percent and a correlation determination of 0.95 and the same for creditors is 1.54 percent and 0.02 respectively.
**Gross Profit Margin Ratio:** The average growth rate through trend analysis shows a growth rate of 150 percent for the gross profit. The same is depicted in the sales also and due to the low sales in the year 2011-12, the Gross Profit also comes down. The average growth rate through trend analysis shows a growth rate of 58 percent for sales. The correlation for both the gross profit as well as sales have an positive and good degree to the tune of 0.86 and 0.83 respectively whereas the correlation for the Gross Profit ratio has come down to 0.66.

**Net Profit Ratio:** The average growth rate for the net profit is a decline of 43 percent, 58 percent for the sales and a negative of -32 percent for the net profit ratio. The correlation for the sales is high to the tune of 0.83 and moderate for both net profit (0.59) and net profit ratio (0.52). It is apparent from the trend chart that though the trend line is positive for both net profit and net profit ratio, they have no exponential growth rate due to the loss whereas the sales has an exponential growth rate of 10.13 percent.

**Return on Assets:** Due to the adverse effect of the net profit the company could have a negative rate on the return on assets during the years from 2005 to 2008 and for the rest of the rest of the years under study, the company was able to have some positive results in the form of return on assets. The average growth rate for the net profit is a decline of 43 percent, 12 percent growth for the total assets and -23.78 percent for the return on total assets. The exploitation of the total assets of the company is low as it could not manage the assets due to the heavy loss incurred.

**Return on Investment:** The correlation is positive in all the three cases which is 0.72 for the capital employed, 0.59 for the net profit and 0.51 for the return on investment. On an average, the net profit has shown a decline of 43 percent, capital employed has shown a growth of 28 percent and return on investment has shown a negative trend of -26 percent.
The correlation determination for capital employed (0.61) which is followed by net profit (0.44) and net profit ratio (0.26).

**Fixed Asset Turnover Ratio**: The Fixed Asset Turnover Ratio which is the reflection of both Cost of Goods Sold and Fixed Assets reveals that except in the year 2008, the growth rate is positive but not so good in the years under study. The growth rate is comparatively more in the years 2009 and 2011. The correlation is positive in all the three cases which is 0.96 for the Fixed Assets, 0.52 for the cost of goods sold and just 0.06 for the Fixed Asset Turnover Ratio. The fixed assets have an exponential growth rate of 7.49 percent. The correlation coefficient determination for fixed assets is at its maximum (0.96) which is followed by cost of goods sold (0.27) and Fixed Asset Turnover Ratio (0.004).

**Fixed Asset to Proprietor’s Ratio**: On an average there is a decline of 6 percent for fixed assets, 23 percent growth rate is found in Shareholders’ funds and a decline of 21 percent in case of Fixed Asset to Proprietor’s Ratio. The correlation is positive and good for fixed assets (0.79) and for Shareholders’ funds (0.77) and the same is negative for Fixed Asset to Proprietor’s Ratio (-0.19). As the ratio doesn’t exceed 1 within any year under study, it is concluded that the ratio has to be improved in order to maintain stability within the business.

**Net Working Capital Turnover Ratio**: As per the correlation analysis, it is known that the degree of relationship is positive and high in case of Working Capital (0.85) and Sales (0.97) and the same for Net working capital turnover ratio is negative (-0.05). The Net working capital turnover ratio is negative for the years from 2004 to 2009 while it is positive and good from 2010 to 2012. The reason behind the change is the negative working capital wherein the current liabilities exceed current assets.
**Working Capital to Total Assets:** As per the correlation analysis, it is known that the degree of relationship is positive and high in case of Working Capital (0.85) and total assets (0.73) and the same for Working Capital to Total Assets is (0.84). The Working Capital to Total Assets is negative for the years from 2004 to 2009 while it is positive and good from 2010 to 2012. The reason behind the change is the negative working capital wherein the current liabilities exceed current assets.

**6.4 Major findings related to consumer perception towards Aavin in Tirunelveli district**

The main findings obtained from the research are presented in this chapter.

**6.4.1 Socio-economic profile of the respondents**

1. Female consumers constitute fifty six per cent of the Aavin milk consumers.
2. Majority of thirty two percent of the consumers are within the 40 to 50 years of age.
3. Majority (50.7 percent) of the consumers are graduation.
4. Majority (26.7 percent) of the consumers are Government employees.
5. Majority (62.00 percent) of the consumers are Hindus.
6. Majority (28 percent) of the consumers equally belong to MBC and FC community.
7. Majority (26 percent) of the consumer’s family income is ₹20,000-30,000 per month.
8. Majority (73.30 percent) of the consumers have nuclear type of families.
9. Majority (38 percent) of the consumers having a family size of 4 members.

**6.4.2 Awareness and preference**

10. Majority (49.3 percent) of the consumers are purchase the Aavin milk from distributors.
11. Majority (51.3 percent) of the consumers preferred toned milk.
12. Majority (26.6 percent) of the consumers who buy 500-1000 litre of milk per day.
13. Majority (45.83 percent) of the consumers prefer to buy the milk at early morning.
14. Majority (46.7 percent) of the consumer’s monthly expenditure for milk ranging from ₹800 – 1600.

15. Majority (56.3 percent) of the consumers who prefer the cash payment for their milk.

16. Majority (61.3 percent) of the consumer’s has been used Aavin milk above 3 years.

17. It is observed that regarding the source of awareness, information obtained through relatives, shop keepers, agent/distributor and doctors is significant at 1% level. Friends and sales personnel are significant at 5% level.

18. Majority (82.00 percent) of the respondents were not aware of other milk brands in the study area.

19. Regarding awareness about other than Aavin brand Arokiya is the most sought brand, followed by Vijay, Matha and Nanjil brand in the study area.

20. The analysis reveals that most of the semi-urban respondents where 902 quantity of milk used for coffee and tea and 600 quantity of milk used for curd, where 750 quantity of milk used for drink by the rural respondents. Among the urban consumers, where 692 quantity of milk used for preparation of sweets.

21. It is observed that regarding their awareness about by products, the rural, semi-urban and rural consumer’s awareness more on ‘ghee’ since its mean score is a maximum of 4.6000, 4.7400 and 4.7600 respectively.

6.4.3 Factors Influencing the Overall Decision Behavior of the consumers

It is observed from the six factors such as quality, healthy conscious, price, availability, door delivery and packaging were extracted out of nineteen attributes. These factors account for about 67.57 percent of variance in the data. Eigen value for the first factor ‘quality’ is 6.094 which indicate that the factor contains very high information than the other factors. The first factor, ‘quality’ provides the maximum insights of purchase decision of Aavin milk in the study area. It is a very important factor, because the
consumers prefer to purchase Aavin milk on the basis of quality. To improve this situation, the dairy unit will give more importance to the attributes concerning ‘quality’ of milk.

6.4.4 Perception towards Aavin milk

1. Perception towards price

The study revealed that the rural and semi-urban consumers gave more importance to the factor that, ‘high quality of Aavin milk are higher price’. Among the urban consumers also the mean score is a maximum on two factors, ‘high quality of Aavin milk are higher price’ and ‘the price is affordable’. The result of F-statistic shows a significant difference on these scores. Among three categories of consumers the mean score is a maximum on factor, ‘high quality of Aavin milk are higher price’. The result of F-statistic shows a significant difference on these scores.

2. Perception towards product quality

Among the rural and Semi-urban consumers, the mean score is a maximum on the factor, ‘the milk is fresh too long time’. The result of F-statistic shows a significant difference respectively. Among the urban consumers, the mean score is a maximum on the factor, ‘the milk consistency is perfect’. The result of F-statistic shows a non-significant difference. The significant difference among three categories of consumers the mean score is a maximum on factor, ‘the milk is fresh too long time.’

3. Perception of consumers towards Availability

According to the study, the rural consumers the mean score is a maximum on two factors, ‘available at all times’ and ‘Not affected by seasonality’s. Among the semi-urban consumers also the mean score is a maximum on the factor, ‘Aavin products are available everywhere’. Among the urban consumers, the mean score is a maximum on the
factor, ‘Not affected by seasonality’s’. The result of F-statistic shows a significant difference on these scores. The significant difference among three categories of consumers the mean score is a maximum on factor, ‘Not affected by seasonality’s’. The result of F-statistic shows a significant difference on these scores.

4. Perception of consumers towards Advertisement

The study revealed that the rural consumers the mean score is a maximum on factor, ‘Advertisement increases publicity’. The result of F-statistic shows a significant difference. Among the semi-urban and urban consumers the mean score is a maximum on the factor, ‘Advertisement highlights product varieties’. The result of F-statistic shows a non-significant difference on these scores. The significant difference among three categories of consumers the mean score is a maximum on factor, ‘Advertisement highlights product varieties’. The result of F-statistic shows a non-significant difference on these scores.

5. Perception of consumers towards Utility

It can be concluded from the high mean scores are observed by the rural and semi-urban consumers with regard to the fact that ‘Milk is mostly preferable for beverages’ and the F-statistics is significant. The significant differences of the urban consumers are more concerned with the fact that ‘Fat rich milk is generally required for preparation of sweet and curd’. The significant difference among three categories of consumers the mean score is a maximum on factor, ‘Fat rich milk is generally required for preparation of sweet’.

6. Perception of consumers towards Brand name

It is observed that the statement, ‘purchase decision of the brand is based on others opinion’ have high- mean scores with regard to rural, semi-urban and urban
categories. The result of F-statistics is significant. The significant difference among three categories of consumers the mean score is a maximum on factor, ‘Purchase decision of the brand is based on others opinion’.

7. Perception of consumers towards Package

The rural consumers are more concerned with the fact that ‘Durability and safety’. The High mean scores are observed by the semi-urban and urban consumers with regard to the fact that ‘Colourful packaging identifies the variety of products’. The result of F-statistics shows a significant difference on these scores. The difference among significant three categories of consumers the mean score is a maximum on factor, ‘Durability and safety’. The result of F-statistic shows a significant difference.

8. Perception of consumers towards consumer care

Regarding the three category of consumers, high mean scores are observed in the statement ‘Grievances of the consumers are duly met’. The result of F-statistics shows a significant difference. The difference among significant three categories of consumers the mean score is a maximum on factor, ‘Grievances of the consumers are duly met’.

Perception towards Aavin milk Index

1. Pricing Index

It is inferred that, a maximum of 48.2 per cent of the consumers have a PI of 50-75 group. The analysis infers that the PI among semi-urban consumers is poor perception compared to others. The rural consumers are far better than other category regarding their pricing.
2. Quality Index

It is found that, a maximum of 68.8 per cent of the consumers have a QI of 50-75 group. The analysis infers that the QI among rural consumers is bad opinion compared to others. The urban consumers are far better than other category regarding their quality.

3. Availability Index

It is observed that, a maximum of 57.5 per cent of the consumers have an AI of 75-100 group. The analysis infers that the AI among semi-urban consumers is poor perception compared to others. The urban consumers are far better than other category regarding their availability.

4. Advertisement Index

It is revealed that, a maximum of 69 per cent of the consumers have an ADI of 50-75 group. The analysis infers that the ADI among urban consumers is poor perception compared to others. The semi-urban consumers are far better than other category regarding their advertisement.

5. Utility Index

It could be understood that, a maximum of 61.7 per cent of the consumers have a UI of 50-75 group. The analysis infers that the UI among urban consumers is poor perception compared to others. The rural consumers are far better than other category regarding their utility.

6. Brand Name Index

It could be inferred that, a maximum of 59.5 per cent of the consumers have a BNI of 50-75 group. The analysis infers that the BNI among rural consumers is poor
perception compared to others. The urban consumers are far better than other category regarding their pricing.

7. Package Index

It is noted that, there a maximum of 56.2 per cent of the consumers have a PI of 75 -100 group. The analysis infers that the PI among semi-urban consumers is poor perception compared to others. The rural consumers are far better than other category regarding their package.

8. Customer Care Index

It is noticed that, a maximum of 67.3 per cent of the consumers have a CCI of 75-100 group. The analysis infers that the CCI among semi-urban consumers is poor perception compared to others. The rural consumers are far better than other category regarding their customer care.

9. Overall Index

It is shown that, a maximum of 57 per cent of the consumers have an OI of 50 to 75 group followed by 41.8 per cent who have an OI of 75-100. The analysis infers that the OI among the semi-urban consumers is better than urban and rural category of consumers.

10. Socio economic factors influencing the level of attitude of the consumers

The regression analysis among the rural consumers, the significantly influencing factors are gender, age, education, religion, income, number of family members, consumption of milk and period of usage. The factors occupation, community and family system were not considered as significant.
Among the semi-urban consumers, the significantly influencing factors are the analysis reveals that an increase in gender, age, education, religion, community, income, number of family members, consumption of milk and period of usage. The factors occupation and family system were considered as non-significant.

Among the rural consumers, the significantly influencing factors are gender, age, education, religion, income, number of family members, consumption of milk and period of usage. The factors occupation, community and family system were not considered as significant.

6.4.5 Problems related to buying behavior of Aavin milk consumers

1. Problems in higher price

The significant difference among three categories of consumers the mean score is a maximum on factor, ‘high price when I compare to other brand’ since its mean score is a maximum of 4.1300. The result of F-statistic shows a significant difference on these scores.

2. Problems in Irregular supply

The significant difference among three categories of consumers the mean score is a maximum on factor, ‘Lack of intermediate services’ since its mean score is a maximum of 4.0867. The result of F-statistic shows a significant difference on these scores.

3. Problems in packaging

The significant difference among three categories of consumers the mean score is a maximum on factor, ‘the expiry date is not mentioned in the packet’ since its mean score is a maximum of 4.1283. The result of F-statistic shows a significant difference on these scores.
4. Problems in Improper Quantity

The significant difference among three categories of consumers the mean score is a maximum on factor, ‘More water content’ since its mean score is a maximum of 4.1183 respectively. The result of F-statistic shows a significant difference.

5. Problems in Intermediate service

The significant difference among three categories of consumers the mean score is a maximum on factor, ‘Unethical competition’ since its mean score is a maximum of 4.3067. The result of F-statistic shows a non-significant difference.

6. Problems in health care

Among the three category of consumers, high mean scores are observed in the statement ‘Pasteurization process creates acidity development and sour of milk’ since its mean score is a maximum of 4.4100, 4.2800 and 4.2300. The result of F- statistics shows a non-significant difference.

7. Over all Constraints Index

The analysis of the overall index of the constraints in the Aavin milk buyers in Tirunelveli district clusters shows that the majority of the rural, urban and semi urban categories of consumers constituting 56.5, 54.5 and 63 percent respectively fall in the index range of 75-100 per cent. Urban consumers faced majority constraints while the others are quite moderate.

6.4.6 Expectation of consumers

Regarding the reason for the expectations of consumers of Aavin milk, the rural, semi-urban and urban consumers perceived more on ‘Price could be reasonable’ since its mean score is a maximum of 4.1800, 4.1000 and 4.5050 respectively.
The resultant important factor towards expectations of consumers is price which consists of 5 variables in it since the respective factor loading of the variables is higher in that factor compared to the other factors. The 5 variables included in price denote to the extent of 72.9 percent. The Eigen value and the present of variation of this factor are 6.091 and 29.01 percent respectively.

6.5 Suggestions

1. The price is an important factor that influences the purchase of the milk. Hence, the milk should be reasonably priced.

2. The pure, fresh and thickness of milk can be improved.

3. New parlors may be opened at rural and urban places and also throughout the district to boost the milk sales and other milk products.

4. As regarding the consumer perception non availability of small quantities ie.100 ml and 200ml pockets.

5. Though advertisements play a dominant role in influencing the milk customers, sales promotion offers could also be introduced by milk companies to a greater extent to influence the customers to purchase the branded milk.

6. The quality of the milk covers should be improved so as to prevent any damage or leakage of the milk. The covers also should be designed in attractive way.

7. The expiry date must be clearly mentioned on the packet.

8. Strategic alliance with competitors, to adopt integrated marketing approach with a common brand name to focus on the development of a strong brand and to reduce cost of promotion could be suggested.

9. Brand involvement should improve in the mind of the customers.

10. Simplifying the procedure related to grievances.
6.6 Recommendations

Drinking a glass of milk is not in fashion these days, as we think that it will add on some extra amount of calories. There are various positive effects of drinking just a glass of milk (make sure you choose a low fat one) each day.

- **Healthy Bones**

  No doubt consuming a good amount of dairy products will keep your bones healthy, it will also strengthen them. Dairy products provide calcium that is essential for the body growth and development. It can avoid osteoporosis in the later stages of life as well. So, make sure you do not skip your glass of milk.

- **Obesity**

  Milk is not a high-fat product. It can be consumed as a part of a calorie-control diet, as it can help you to lose weight around the abdomen.

- **Controls Blood Pressure**

  Dairy products help to reduce blood pressure. Including a diet containing fruits, vegetables, low-fat dairy products and low salt helps in controlling your blood pressure. The potassium, magnesium and calcium found in the dairy products help to maintain a healthy blood pressure level.

- **Cancer**

  Studies have revealed that consuming milk and other dairy products can reduce the risk of certain types of cancer. So, make sure you consume dairy products in a good amount and consume a glass of milk every day to avoid cancer risk.
➢ **Metabolic Syndrome**

Studies have revealed that people who consumed more of dairy products like yogurt, milk and cheese have lesser chances of a wider waist size and metabolic syndrome. These groups of syndromes help to lower the risk of diabetes and heart disease.

➢ **It Helps In Sleeping Better**

Dairy products are rich in proteins that help you in sleeping better. It helps to improve the sleep quality and increases the next day alertness. Tryptophan raises the levels of serotonin and melatonin, which help in catching a good night's sleep. This is one of the health benefits of consuming dairy products.

➢ **It Keeps You Full**

Cheese helps you to stay fuller for a longer period of time. You can have this as a snack to beat hunger or along with a sandwich as a spread. A research has revealed that children who snacked on a combination of cheese and veggies consumed less calories as compared to kids who binged on potato chips. Therefore, it is one of the best choices to consume more dairy products.

**6.7 Conclusion of the study**

Majority of the rural and semi-urban respondents are satisfied with the selected Aavin products, they are satisfied with the availability of the products at their regular buying places, they are happy with their product quality and price of the product. The rural people are mainly price conscious but not so brand loyal, so they may switch to other brand in case, other brand offer them comparative quality product with low price, they do not consider the fragrance and taste as important factor while making purchase decision. As well there is very low effect of brand ambassador on their buying behaviour.
but advertisement definitely helps them to increase their product knowledge and which
helps them to differentiate between branded products and spurious products. Overall it
can be concluded that, among five marketing mix strategy except price, the operational
performance of Aavin dairy unit is excellent.

6.8 Scope for Further Research

The implied limitation of this study provided a wide scope for the future
researchers to pursue their research work in the field of consumer behaviour with
reference to purchase Aavin products. In future the researchers can attempt their study in
comparing the private and public sector packet milk in the consumer decision behavior in
Tirunelveli district, since no researcher made an attempt in this concept. Further the
researcher scholars can attempt in the problems related to milk producers in dairy
industry which paves a wide scope for future research.