CHAPTER VII
SUMMARY OF FINDINGS, SUGGESTIONS
AND CONCLUSION

7. 1. Introduction

Indian economy has been basically agriculture oriented since times immemorial. During the earlier periods of history particularly in the Vedic era, there was no system of agricultural marketing. Preliminary efforts were made during the mauryan period in this field. With the advent of British rulers in India, some fundamental changes in this field were introduced. This led to the establishment of various markets on local, regional and terminal bases. But there were many hurdles in this respect and various malpractices were prevalent. Besides, Indian agriculture is characterized by lack of strong linkages between production and marketing may be due to inadequate marketing infrastructure. However, better growth in agriculture production has resulted in higher market surplus in case of many crops. So, agriculture sector needs well functioning markets to drive growth, employment generation and economic prosperity in rural areas of the country. In this transitional stage, regulation of marketing becomes an essential part of the policy for improving the agricultural marketing system. Hence, in this context, market performance and policy reforms undertaken by the regulated markets from time to time, need to be assessed whether it has
been keeping pace with the developments in production system and the efficiencies of policies for better working of regulated markets to face the challenges of liberalization of trade in the country.

The present study was conducted in Tamil Nadu with the sample size of 480 farmers from 8 regulated markets. A brief description of the conceptual framework of agricultural marketing is given in Chapter I. The reviews of previous studies are presented in Chapter II. The research has been originally sparked off by research objectives in Chapter III which led to the hypotheses outlined about the perception of the farmers towards working of regulated markets. The methods followed are described in Chapter III. Conceptual framework of the regulated markets and their activities are discussed in Chapter IV. The operational performance of the select regulated markets is analyzed in Chapter V. The relationship between socio-economic profile of the respondents and their level of satisfaction towards working of regulated markets, and problems encountered by the farmers in the regulated markets are discussed in Chapter VI. In this chapter, the main findings of the study are summarized, the problems encountered are mentioned, recommendations are made and scope for the future studies is outlined.
7.2. Findings

The findings of the study are given under two heads, namely operational performance of the regulated markets and perception of the farmers towards working of regulated markets.

7.2.1. Operational Performance of the Regulated Markets

1. The average market arrival in the Vridhachalam regulated market is higher (57390.78 MT), followed by Panruti regulated market (8691.15 MT). Conversely, the market arrival in the Kattumannarkoil regulated market is low (1167.96 MT), followed by Sri Mushnam regulated market (1212.32 MT).

2. The overall co-efficient of variation of the quantum of market arrival in the regulated markets in Cuddalore district is 13.96%. The variation in the market arrival in the Sri Mushnam regulated market is high (78.91%) followed by Kattumannarkoil regulated market (76.71%) and it is least in the Muthunagar regulated market (9.88%). It means that there exists consistency in the quantum of market arrival in the Muthunagar regulated market during the study period. Sri Mushnam and Muthunagar regulated markets have registered negative annual growth rates for quantum of market arrival. Kattumannarkoil regulated market has uppermost annual growth rate (195.69) followed by Thittakudi regulated market (14.41) and it is smallest amount in
Panruti regulated market (3.31). Linear annual and compounded annual growth rates of the quantum of market arrival in the Muthunagar, Sri Mushnam and Kattumannarkoil regulated markets have registered a negative value. Vridhachalam regulated market has registered utmost linear annual growth rate (2469.62) followed by Panruti regulated market (185.69) and it is least in Kurinjipadi regulated market (100.33). Thittakudi regulated market has registered highest compounded annual growth rate (5.31) followed by Vridhachalam regulated market (4.51) and it is least in Panruti regulated market (2.20).

3. The average market arrival in the Sirkazhi market yard is higher (8978.57 MT), followed by Sembanarkoil regulated market (8433.99 MT). The market arrival in the Nagapattinam regulated market is low (394.40 MT), followed by Kivalur regulated market (669.20 MT). The average market arrivals in the Kuttalam, Mailaduthurai and Vedaranayam regulated markets are 5477.83 MT, 5414.05 MT and 757.46 MT respectively.

4. The overall co-efficient of variation of the quantum of market arrival in the regulated markets in Nagapattinam district is 12.46%. The variation in the market arrival in the Nagapattinam regulated market is far above the ground (101.48%) followed by Kivalur regulated market
and it is least in the Sembanarkoil regulated market (12.16%). It reveals that there exists stability in the quantum of market arrival in the Sembanarkoil regulated market. Sembanarkoil and Sirkazhi regulated markets have registered negative annual, linear annual and compounded annual growth rates during the study period. Nagapattinam regulated market has maximum annual growth rate (86.13) followed by Mailaduthurai regulated market (20.61) and it is least in Kivalur regulated market (1.16). Mailaduthurai regulated market has registered highest linear annual growth rate (422.45) followed by Kuttalam regulated market (510.67) and it is least in Vedaranayam regulated market (96.79). In regards compounded annual growth rate, Nagapattinam regulated market has registered highest value (65.10) followed by Vedaranayam regulated market (13.91) and it is least in Kuttalam regulated market (8.79).

5. The average market arrival in the Gingee regulated market is high (88369.40 MT) followed by Thirukovilur regulated market (62634.40 MT) and Villupuram regulated market (50867.30 MT). The market arrival in the Moongilthuraipattu regulated market is low (581.70 MT) followed by Marakkanam regulated market (1211.20 MT) and Valathhi regulated market (3968.70 MT). The average market arrival ranges between 6333.80 MT and 36114.30 MT in the Tindivanam, Kallakurichi, Avalurpet, Ulundurpet, Vikravandi, Thiruvennainallur,
Sankarapuram, Manalurpet, Thiagadurgam and Chinnasalem regulated markets in Tamil Nadu.

6. Taken as a whole, the co-efficient of variation of the quantum of market arrival in the regulated markets in Villupuram district is 16.68%. The variation in the market arrival in the Marakkanam regulated market is high (72.30%) followed by Valathi regulated market (57.88%) and it is smallest amount in the Villupuram regulated market (11.31%). It means that there exists consistency in the quantum of market arrival in the Villupuram regulated market. Avalurpet regulated market has highest annual growth rate (31.14) followed by Thiagadurgam regulated market (16.23) and it is least in Manalurpet regulated market (0.26). Vikravandi, Thiruvennainallur and Marakkanam regulated markets have registered negative annual growth rate during the study period. In regards quantum of market arrival, Tindivanam, Thiruvennainallur, Manalurpet, Marakkanam, Valathi and Moongilthuraipattu regulated markets have registered negative linear annual and compounded annual growth rates during the study period. Gingee regulated market has registered utmost linear annual growth rate (5425.56) followed by Thirukovilur regulated market (4214.01) and it is least in Vikravandi regulated market (343.39). In regards compounded annual growth rate, Avalurpet regulated market has registered highest value (19.34) followed by
Kallakurichi regulated market (9.54) and it is least in Villupuram regulated market (1.24).

7. The average market arrival in the Vridhachalam regulated market is high (Rs.7257.70 lakhs), followed by Panruti regulated market (Rs.2723.09 lakhs). The market arrival in the Kattumannarkoil regulated market is low (Rs.62.16 lakhs), followed by Sri Mushnam regulated market (Rs.75.12 lakhs). The market arrivals in the Muthunagar, Thittakudi and Kurinjipadi regulated markets are Rs. 671.99 lakhs, R. 339.18 lakhs and Rs. 662.27 lakhs respectively.

8. The overall co-efficient of variation of the value of market arrival in the regulated markets in Cuddalore district is 69.49%. The variation in the value of market arrival in the Panruti regulated market is high (210.74%) followed by Kattumannarkoil regulated market (67.60%) and it is least in the Muthunagar regulated market (34.23%). Thus, a consistency is found in the value of market arrival in the Muthunagar regulated market. Kattumannarkoil regulated market has highest annual growth rate (220.50) followed by Panruti regulated market (167.59) and it is least in Sri Mushnam regulated market (2.38). Sri Mushnam and Kattumannarkoil regulated markets have registered negative linear annual and compounded annual growth rates during the study period. Panruti regulated market has registered uppermost linear
annual growth rate (1073.54) followed by Vridhachalam regulated market (423.71) and it is least in Thittakudi regulated market (9.30). In regards compounded annual growth rate, Panruti regulated market has registered maximum growth rate (29.42) followed by Kurinjipadi regulated market (14.15) and it is least in Thittakudi regulated market (2.34).

9. The average value of market arrival in the Sembanarkoil market yard is higher (Rs. 678.49 lakhs), followed by Sirkazhi regulated market (Rs.640.64 lakhs). The average value of market arrival in the Thiruppondi regulated market is low (Rs.24.17 lakhs), followed by Kivalur regulated market (Rs.48.35 lakhs). The mean values of market arrival in the Kuttalam, Mailaduthurai, Nagapattinam and Vedaranayam regulated markets are Rs. 434.85 lakhs, Rs.475.87 lakhs, Rs.57.72 lakhs and Rs.69.22 lakhs respectively.

10. The overall co-efficient of variation of the value of market arrival in the regulated markets in Nagapattinam district is 25.69%. The variation in the value of market arrival in the Nagapattinam regulated market is high (117.23%) followed by Kuttalam regulated market (87.34%) and it is smallest amount in the Sembanarkoil regulated market (11.87%). Thus, there exists consistency in the value of market arrival in the Sembanarkoil regulated market. Nagapattinam regulated
market has highest annual growth rate (137.53) followed by Kuttalam regulated market (40.36) and it is least in Sembanarkoil regulated market (1.98). Sirkazhi regulated market has registered negative linear annual and compounded annual growth rates during the study period.

Kuttalam regulated market has registered uppermost linear annual growth rate (99.77) followed by Mailaduthurai regulated market (53.12) and it is least in Kivalur regulated market (1.68). In regards compounded annual growth rate, Nagapattinam regulated market has registered highest growth rate (48.26) followed by Vedaranayam regulated market (28.54) and it is least in Sembanarkoil and Kivalur regulated markets (0.90).

11. The average value of market arrival in the Gingee market yard is higher (Rs.8835.26 lakhs), followed by Thirukovilur regulated market (Rs. 6469.39 lakhs) and Villupuram regulated market (Rs. 5646.65 lakhs). On the other hand, the value of market arrival in the Moongilthuraipattu regulated market is low (Rs.35.22 lakhs), followed by Marakkanam regulated market (Rs.185.71 lakhs) and Valathi regulated market (Rs.232.77 lakhs). Besides, the values of market arrival in the Tindivanam, Kallakurichi, Avalurpet, Ulundurpet and Vikravandi regulated markets are Rs. 3347.52 lakhs, Rs. 3698.65 lakhs, Rs. 2276.69 lakhs, Rs. 3414.30 lakhs and Rs. 2411.15 lakhs respectively. The values of market arrival in the Thiruvennainallur,
Sankarapuram, Manalurpet, Thiagadurgam and Chinnasalem regulated markets are Rs.391.51 lakhs, Rs.2347.00 lakhs, Rs. 774.64 lakhs, Rs.634.76 lakhs and Rs.1573.53 lakhs respectively.

12. Taken as a whole, the co-efficient of variation of the value of market arrival in the regulated markets in Villupuram district is 33.31%. The variation in the value of market arrival in the Moongilthuraipattu regulated market is high (64.66%) followed by Avalurpet regulated market (60.09%) and it is least in the Thiruvennainallur regulated market (17.81%). A consistency is found in the value of market arrival in the Thiruvennainallur regulated market. Avalurpet regulated market has highest annual growth rate (31.50) followed by Valathi regulated market (25.44) and it is least in Manalurpet regulated market (3.24). Thiruvennainallur, Marakkanam and Moongilthuraipattu regulated markets have registered negative linear annual and compounded annual growth rates during the study period. Gingee regulated market has registered highest linear annual growth rate (934.74) followed by Thirukovilur regulated market (863.19) and it is least in Valathi regulated market (15.38). In regards compounded annual growth rate, Avalurpet regulated market has registered highest growth rate (27.01) followed by Kallakurichi regulated market (17.93) and it is least in Manalurpet regulated market (1.79).
13. Among the major produces, paddy holds the top position in terms of average market arrival (54984.38 MT) followed by groundnut (7650.47 MT) and it is low in the case of cotton (277.95 MT). The average quantum of market arrivals of bajra, ragi, gingelly, black gram, green gram, varagu/sugarcane and chilly are 1878.08 MT, 386.90 MT, 5464.40 MT, 2176.30 MT, 396.14 MT, 1033.49 MT and 461.02 MT respectively. Other produces constitute an average of 4862.15 MT during the study period.

14. The co-efficient of variation of the quantum of market arrival of major produces in the regulated markets in Cuddalore district is 13.96%. The variation in the quantum of market arrival of cotton is high (109.27%) in the regulated markets in Cuddalore district followed by chilly (99.23%) and it is least in the paddy (14.35%). It reveals that there exists consistency in the quantum of market arrival of paddy. Other produce has registered maximum annual growth rate (45.54) followed by green gram (37.64) and it is smallest amount in paddy (4.18). The annual growth rate of quantum of market arrival of cotton and chilly has negative values. Ragi, groundnut, green gram, cotton and chilly have registered a negative linear annual and compounded annual growth rates. Paddy has registered highest linear annual growth rate (1365.24) followed by other produce (871.91) and it is least in bajra (115.89). In regards compounded annual growth rate, other produce
has registered highest growth rate (27.52) followed by black gram (10.48) and it is least in paddy (2.53).

15. Among the major produces, paddy holds the top position in terms of average market arrival (27705.78 MT) followed by cotton (2067.85 MT) and it is low in the case of green gram (60.85 MT). The average quantum of market arrivals of black gram and groundnut are 112.94 MT and 134.60 MT respectively.

16. The co-efficient of variation of the quantum of market arrival of major produces in the regulated markets in Nagapattinam district is 12.46%. The variation in the quantum of market arrival of green gram is high (115.89%) in the regulated markets in Nagapattinam district followed by black gram (88.09%) and it is least in paddy (13.28%). A consistency is found in the quantum of market arrival of paddy. Green gram has registered highest annual growth rate (956.54) followed by black gram (252.66) and it is least in paddy (2.96). Groundnut and cotton have registered negative linear annual and compounded annual growth rates. Paddy has registered uppermost linear annual growth rate (69.48) followed by black gram (17.28) and it is least in green gram (10.84). In case of compounded annual growth rate, green gram has registered highest growth rate (24.49) followed by black gram (15.99).
17. Paddy holds the top position in terms of average market arrival (332779.80 MT) followed by groundnut (21442.20 MT) and bajra (13418.50 MT). The mean score of the market arrival of green gram is low (323.00 MT) followed by ragi (2046.40 MT) and other produce (5513.90 MT). The average quantum of market arrival of gingelly, black gram and cotton are 7587.10 MT, 6486.80 MT and 7821.80 MT respectively. Since the data are not available for few years for cashew nut, varagu/sugarcane, maize and sunflower, the average quantum of market arrival is not computed.

18. The co-efficient of variation of the quantum of market arrival of major produces in the regulated markets in Villupuram district is 16.68%. The variation in the quantum of market arrival of green gram is high (52.96%), followed by black gram (52.64%) and it is least in paddy (18.04%). Thus, there exists consistency in the quantum of market arrival of paddy. Black gram has registered highest annual growth rate (38.12) followed by green gram (28.51) and it is least in Gingelly (1.01). Produces such as ragi, groundnut, cotton and other produce have registered negative linear annual and compounded annual growth rates. Paddy has registered highest linear annual growth rate (14917.88) followed by black gram (710.78) and it is least in green gram (43.02). In regards compounded annual growth rate, black gram
has registered highest value (14.59) followed by green gram (14.53) and it is least in bajra (3.32).

19. Paddy holds the top position in terms of average value of market arrival (Rs. 4896.81 lakhs) followed by groundnut (Rs. 2362.93 lakhs) and Gingelly (Rs. 1641.24 lakhs). The average value of market arrival is low in the case of Ragi (Rs.35.53 lakhs) followed by Cotton (Rs.58.43 lakhs) and varagu/sugarcane (Rs.100.42 lakhs). The average values of market arrival of bajra, black gram, green gram, chilly and other produces are Rs.158.14 lakhs, Rs. 632.98 lakhs, Rs. 102.75 lakhs, Rs. 210.10 lakhs and Rs. 606.18 lakhs respectively.

20. The co-efficient of variation of the value of market arrival of major produces in the regulated markets in Cuddalore district is 42.21%. The variation in the value of market arrival of chilly is high (139.10%) in the regulated markets in Cuddalore district, followed by cotton (114.13%) and it is least in gingelly (42.23%). Thus, a consistency is found in the value of market arrival of gingelly. Green gram has registered highest annual growth rate (97.21) followed by other produce (94.71) and it is least in gingelly (20.16). Produces such as groundnut, cotton and chilly have registered negative linear annual and compounded annual growth rates. Paddy has registered highest linear annual growth rate (400.15) followed by gingelly (153.18) and it is
smallest amount in ragi (1.59). In regards compounded annual growth rate, other produce has registered highest value (32.23) followed by black gram (19.62) and it is least in green gram (3.03).

21. Paddy holds the top position in terms of average value of market arrival (Rs.1895.40 lakhs) followed by cotton (Rs. 415.02 lakhs) and it is least in green gram (Rs.18.37 lakhs). The average values of market arrival of black gram and groundnut are Rs.35.42 lakhs and Rs.30.78 lakhs respectively.

22. The overall co-efficient of variation of the value of market arrival of major produces in the regulated markets in Nagapattinam district is 25.69%. The variation in the value of market arrival of green gram is high (161.35%) in the regulated markets in Nagapattinam district, followed by black gram (101.69%) and it is least in paddy (38.90%). It means that there exists consistency in the value of market arrival of paddy. Green gram has registered highest annual growth rate (1125.06), followed by black gram (1039.07) and it is least in paddy (12.53). Cotton has registered negative linear annual and compounded annual growth rates. Paddy has registered highest linear annual growth rate (200.08) followed by black gram (7.82) and it is least in groundnut (0.60). In regards compounded annual growth rate, green gram has
registered highest value (34.80) followed by black gram (31.39) and it is least in groundnut (1.50).

23. Among the major produces, paddy holds the top position in terms of average value of market arrival (Rs.26123.10 lakhs) followed by groundnut (Rs.6450.13 lakhs) and gingelly (Rs.2347.00 lakhs). The average value of market arrival is low in the case of green gram (Rs.106.07 lakhs), followed by ragi (Rs. 137.63 lakhs) and it is least in other produce (Rs. 867.96 lakhs). The average values of market arrival of bajra, black gram and cotton are Rs.927.26 lakhs, Rs.2261.62 lakhs and Rs.1908.68 lakhs respectively.

24. The overall co-efficient of variation of the value of market arrival of major produces in the regulated markets in Villupuram district is 33.31%. The variation in the value of market arrival of green gram is high (88.26%) followed by black gram (70.91%) and it is least in ragi (21.01%). Therefore, a consistency is found in the value of market arrival of ragi. Black gram has registered highest annual growth rate (82.82) followed by green gram (54.33) and it is smallest amount in ragi (7.25). Paddy has registered highest linear annual growth rate (2746.53), followed by groundnut (396.60) and it is least in ragi (7.47). In regards compounded annual growth rate, green gram has registered
highest value (29.35) followed by black gram (23.77) and it is least in cotton (3.42).

25. There is a significant relationship among the quantum of market arrival among the regulated markets in select districts. However, no significant relationship is found in the quantum of market arrival among the regulated markets in select districts over the years.

26. The average quantum of market arrival is high in Villupuram district (411071.00 MT), followed by Cuddalore district (78951.49 MT) and it is least in Nagapattinam district (30238.49 MT). Thus, a consistency is found in the average quantum of market arrival in Nagapattinam district (12.46%). The annual growth rate of the quantum of market arrival is high in Villupuram district (6.90), followed by Cuddalore district (4.80) and it is least in Nagapattinam district (2.19). The linear annual and compounded annual growth rates of the quantum of market arrival show negative value in Nagapattinam district. Villupuram district has registered uppermost linear annual growth rate (19031.44) and compounded annual growth rate (5.05). The linear annual and compounded annual growth rates of the quantum of market arrival in Cuddalore district are 5.05 and 2.73 respectively.

27. There is a significant relationship in the value of market arrival among the regulated markets in select districts. However, no significant
relationship is found in the value of market arrival among the regulated markets in the select districts over the years.

28. The mean value of market arrival is high in Villupuram district (Rs.42364.78 lakhs) followed by Cuddalore district (Rs.11846.46 lakhs) and it is least in Nagapattinam district (Rs.2426.90 lakhs). A consistency is found in the average value of market arrival in Nagapattinam district (25.69%). The annual growth rate of the value of market arrival is high in Cuddalore district (41.11), followed by Villupuram district (12.20) and it is least in Nagapattinam district (10.79). Villupuram district has registered highest linear annual growth rate (4416.55) followed by Cuddalore district (1610.63) and it is least in Nagapattinam district (151.91). The compounded annual growth rates of the value of market arrival in Cuddalore, Nagapattinam and Villupuram districts are 13.55, 6.11 and 11.43 respectively.

29. A significant relationship is found in the quantum and value of market arrival among the select regulated markets in Tamil Nadu over the years.

30. The average quantum of market arrival is high in Gingee regulated market (88369.40 MT) followed by Thirukovilur regulated market (62634.40 MT) and it is least in Vedaranayam regulated market (757.46 MT). A consistency is found in the average quantum of market
arrival in Sembanarkoil regulated market (12.16%). Srimushnam, Sembanarkoil and Marakkanam regulated markets have registered negative annual, linear annual and compounded annual growth rates for average quantum of market arrival. The annual growth rate of the quantum of market arrival is high in Vedaranayam regulated market (21.19), followed by Valathi regulated market (12.88) and it is least in Vridhachalam regulated market (7.21). The linear annual growth rate of the quantum of market arrival is high in Gingee regulated market (5425.56), followed by Thirukovilur regulated market (4214.01) and it is smallest amount in Vedaranayam regulated market (96.79). The compounded annual growth rate of the quantum of market arrival is high in Vedaranayam regulated market (13.91), followed by Thirukovilur regulated market (7.79) and it is least in Vridhachalam regulated market (4.56).

31. The mean value of market arrival is high in Gingee regulated market (Rs.8835.26 lakhs) followed by Vridhachalam regulated market (Rs.7257.70 lakhs) and it is least in Vedaranayam regulated market (Rs.69.22 lakhs). A consistency is found in the average value of market arrival in Sembanarkoil regulated market (11.87%). The annual growth rate of the value of market arrival is high in Vedaranayam regulated market (38.66) followed by Vridhachalam regulated market (37.70) and it is least in Sembanarkoil regulated market (1.98). The
linear annual growth rate of the value of market arrival is high in Gingee regulated market (934.74), followed by Thirukovilur regulated market (863.19) and it is least in Sembanarkoil regulated market (6.54). The compounded annual growth rate of the value of market arrival is high in Vedaranayam regulated market (28.54), followed by Thirukovilur regulated market (16.28) and it is smallest amount in Sembanarkoil regulated market (0.90).

7.2.2. Perception of the Farmers towards Working of Regulated Markets

1. Out of 480 respondents, 81.25 per cent are male and 18.75 per cent are female. The predominant age group of the respondents (50.83 per cent) in the select regulated markets is 41-50 years. A good majority of the remaining respondents (19.17 per cent) are distributed in the age group above 50 years. 13.13% and 16.87% of the respondents are distributed in the age groups upto 30 years and 31-40 years respectively.

2. Out of 480 respondents, the principal literacy group (30.84 per cent) of the respondents is H.Sc education. 23.33 per cent and 19.79 per cent of the respondents have primary education and Diploma/ITI education respectively. 12.29 per cent of the respondents are uneducated. 10.82 per cent of the respondents have degree and 2.92 per cent of the respondents have postgraduation and above qualifications.
3. 69.17 per cent of the respondents are in the annual income range upto Rs.1,00,000, and 10.41 per cent of the respondents have Rs.1,00,001-Rs.2,00,000 as annual income. 8.75 per cent of the respondents have annual income in the range of Rs.2,00,001-3,00,000. 11.67 per cent of the respondents have above Rs.3,00,000 as annual income.

4. Out of 480 respondents, 46.46 per cent of the respondents are marginal and small farmers. 23.33 per cent and 30.21 per cent of the respondents are medium farmers and big farmers respectively.

5. 87.71 per cent of the respondents are married and 12.29 per cent are unmarried. 14.38 per cent of the respondents have 2 and below family members, 26.46 per cent have 3 and 4 family members, 50.62 per cent of the respondents have 5 and 6 family members and 8.54 per cent of the respondents have 7 and above family members.

6. 46.46% of the respondents are cultivating produce in less than 5 acres. 23.33% and 30.21 of the respondents are cultivating produce in 6-10 acres and above 10 acres respectively.

7. Vridhachalam, Srimushnam, Gingee, Thirukovilur, Marakannam, Valathi, Sembanarkoil and Vedaranayam regulated markets were selected for the present study and 60 farmers were selected from each market.
8. Out of 480 respondents, 50 per cent belong to outperforming markets and 50 per cent belong to lowperforming markets.

9. 16.25 per cent and 18.54 per cent of the respondents are marketing their produce to wholesalers and by direct selling. Processing units/mill owners and financiers/money lenders are the means of marketing agricultural produce of the respondents at 21.46 per cent and 37.08 per cent respectively. 48.96 per cent of the respondents are marketing their agricultural produce through commission agents. 51.04 per cent and 100 per cent of the respondents are marketing their produce by co-operative markets and regulated markets respectively.

10. Out of the 480 respondents, 87.50%, 12.50% and 0% of the respondents are aware, partially aware and not aware of the working of regulated markets. Besides, 96.25 per cent of the respondents stated that the regulated markets are useful. According to 3.75 per cent of the respondents, the regulated markets are not useful.

11. 16.25% to 28.33% of the respondents prefer regulated markets because of more buyers, quality certification, nearness to farm, sorting and absence of intermediaries. Market information, better service, immediate and prompt payment, and less marketing expense are the other factors motivating the respondents to prefer regulated markets at 34.79%, 37.08%, 40.21% and 43.13% respectively.
43.96% to 57.92% of the respondents prefer regulated markets because of infrastructure facilities, correct weightment, grading and standardization, and better price.

12. Forefathers, newspapers, self-help groups and advertisement in television are the sources of information of the sample farmers to know about the regulated markets at 13.96%, 16.46%, 18.54% and 21.46% respectively. 26.67 per cent to 35.83 per cent of the respondents’ sources of information to know about the regulated markets are co-farmers, Panchayat officials, advertisement in radio, officials of the regulated markets and friends and relatives.

13. Out of 480 respondents, 18.54% and 27.50% of the respondents are cultivating ragi and chilly respectively. 35.83 per cent to 47.50 per cent of the respondents are cultivating bajra, cotton, groundnut and green/black gram. 57.08% and 57.91% of the respondents are cultivating oil seeds and paddy respectively.

14. 24.17 per cent of the respondents belong to less than 10 km from the regulated market place. 33.12 per cent and 26.46 per cent of the respondents belong to 11 km to 20 km and 21 km to 30 km respectively from the regulated market place. 16.25 per cent of the respondents belong to more than 30 km from the place of regulated market.
15. Out of 480 respondents, 12.08 per cent of the respondents use own transport and 58.75 per cent of the respondents use private transport. Public transport is the mode of transport of the respondents at 29.17 per cent.

16. No significant relationship is found among the satisfaction levels of the respondents belonging to different genders, age groups, educational status groups, annual income groups and market performance towards working of regulated markets. However, a significant relationship is found among the satisfaction levels of the respondents of different categories and market belonging to towards working of regulated markets in select districts in Tamil Nadu.

17. Female respondents, respondents in the age group upto 30 years, uneducated respondents, respondents whose annual income range is Rs.1,00,001-2,00,000, medium farmers, respondents marketing their produce at Valathi regulated market and respondents of outperform markets are more satisfied with working of regulated markets in select districts in Tamil Nadu.

18. There exists consistency in the satisfaction level of male respondents, respondents belonging to above 50 years, respondents who have Diploma/ITI qualification, respondents whose annual income is Rs.1,00,001-2,00,000, big farmers, farmers marketing produce at
Valathi regulated market and respondents of lowperforming markets towards working of regulated markets in select districts in Tamil Nadu.

19. There has been a low degree of correlation between the overall satisfaction on the working of regulated markets and the selected personal variables. The $R^2$ indicates that 17.10% of variation in the overall satisfaction is explained by all personal variables taken together. The $F$ value indicates that the multiple correlation coefficients are significant at 1% level. Gender, age, education, annual income and market performance have no significant effect on the overall satisfaction of the farmers on the working of regulated markets. Farmers’ category at 1% level has significant effect on the overall satisfaction towards working of select regulated markets.

20. Multiple discriminant function analysis resulted in two discriminant functions, of which the factors relating to infrastructure and marketing measures predominantly contributed to the first function and agricultural input shops contribute to the second discriminant function. The efficiency of these functions was tested using classification matrix which predicted 64.60% of the cases correctly. The multiple discriminant function analysis results further show that the medium farmers differ more from big farmers in on both ‘Infrastructure & Marketing Measures’ and ‘Agricultural Input Shops’ dimensions.
21. Discriminant function analysis was employed to find the variables which significantly discriminate the respondents of one group (outperform market) from the other group (lowperform market). The results show that ‘payment procedure’ is the maximum discriminating variable \( (R^2 = 22.0\%) \) between outperform market and lowperform market farmers, followed by ‘provision of latrines’ (18.58\%), ‘pledge loan facility’ (8.53\%) in that order. Other variable, namely ‘auction system’, in contribution of discriminating between outperform and lowperform markets is less than 5\%.

22. Out of 480 respondents, majority of the respondents are highly dissatisfied (27.92\%) with the working of regulated markets, followed by dissatisfied (27.71\%) and neither satisfied nor dissatisfied (22.50\%). 9.16\% and 12.71\% of the respondents are highly satisfied and satisfied respectively with the working of regulated markets. The average satisfaction score reveals that the respondents have higher satisfaction level towards agricultural input shops and platform for display of produce in the regulated markets (2.59), followed by security services and provision of latrines (2.58). On the other hand, the respondents have low mean score with the auction system (2.31), followed by the farmers’ rest sheds and market information.
23. Out of the 480 respondents, 32.71 of the respondents did face the situation of unsold produce in the regulated markets due to low price. About 67.29 per cent of the respondents did not face this kind of situation.

24. No significant relationship is found among the acceptance levels of the respondents belonging to different genders, age groups, educational status groups, annual income groups, different categories, market belongs and market performance towards problems prevailing in the regulated markets in select districts in Tamil Nadu.

25. Female respondents, respondents in the age group above 50 years, uneducated farmers, respondents whose annual income range is Rs. 2,00,001-3,00,000, marginal and small farmers, respondents marketing their produce at Vridhachalam regulated market and respondents of out performing markets have higher acceptance level towards problems prevailing in the regulated markets.

26. There exists consistency in the acceptance level of male respondents, respondents belonging to age group above 50 years, respondents who have degree qualification, respondents whose annual income is Rs. 1,00,001-2,00,000, medium farmers, farmers marketing produce at Gingee regulated market and respondents of lowperform markets towards problems prevailing in the market.
27. There has been a low degree of correlation between the overall acceptance with the problems in regulated markets and the selected personal variables. The R square indicates that 0.60% of variation in the overall acceptance is explained by all personal variables taken together. The F value indicates that the multiple correlation coefficients are not significant. Gender, age, educational qualification, annual income, category and market performance have no significant effect on the overall acceptance of the respondents with the problems prevailing in the select regulated markets.

28. Out of 480 respondents, majority of the respondents indicate that they neither agree nor disagree (31.88%) with the problems prevailing in the regulated markets, followed by agree (28.33%) and disagree (22.29%). 9.58% and 7.92% of the respondents strongly agree and strongly disagree respectively with the problems prevailing in the regulated markets. The average acceptance score shows that the respondents have higher acceptance level towards poor and inadequate storage facility (3.62), followed by higher commission charges (3.41) and absence of bargaining power (3.36). The respondents have low level of acceptance towards absence of regular buyers (2.71), followed by inadequate transport facility (2.91).
29. 27.50% to 47.50% of the respondents suggest that provision of agricultural input shops, provision for drinking water, provision of credit facility, provision of canteen facility and supply of market information will ensure efficient functioning of regulated markets. Provision of communication facility, farmers’ development and welfare programme and facilities for grading and standardization are the suggestions of the sample farmers for the efficient functioning of regulated markets at 54.58%, 57.50% and 61.04% respectively. 63.13% to 78.75% of the respondents suggest that training to farmers and staff, establishment of rural godowns, prompt payment and good maintenance of rest sheds will make certain the efficient functioning of regulated markets in select districts in Tamil Nadu.

7.3. Suggestions

Based on the perception of the sample farmers and the analysis, the following suggestions are given for the efficient functioning of regulated markets in select districts in Tamil Nadu.

1. Non-availability of infrastructure facilities is a serious handicap in the smooth and efficient functioning of regulated markets. It is therefore suggested that the Agricultural Produce Market Committees of the select districts should come forward to provide necessary storage facilities and other infrastructural facilities in order to avoid market
glut and price without any exception. The select regulated markets can be modernized by providing proper infrastructure and facilities. The government may frame policies to create scientific storage facilities on large scale. This would go a long way in fetching remunerative prices to the farmers and avoiding high fluctuations in prices and protecting the interest of both farmers and consumers.

2. A uniform set of grade specifications must be followed for the produces in all the markets, so as to inject confidence among the farmers. This would go a long way in making the agricultural marketing more perfect. Further, the efficiency with which various market practices like grading decides the success or failure of regulated markets. It has been observed that grading is normally done by traders by inspection in the select regulated markets. This has resulted in down grading the quality of the produce and financial loss to farmers. The farmers must be encouraged to bring graded produce to the markets based on the physical qualitative characteristics like size, shape, colour, etc. The graded produce in the markets will fetch the remunerative premiums and discounts. Therefore, it is suggested that facilities should be created for scientific grading with proper equipment and trained personnel. Besides, the government and the market committees of the select districts should pay attention to thoroughly train the graders. A satisfactory grading system is possible
only by providing a grading center at the premises of APMCs of the select district where quick correct scientific grading can be done.

3. In order to free the farmers from the clutches of the money lenders, it is suggested that credit facilities should be given by the regulated markets at reasonable rate of interest on the pledge of their produce and this amount may be recovered at the time of sale of their produce. Further, efforts should be made to popularize the pledge loan scheme and allocate more and more funds under loan scheme. Hence, it is essential to educate farmers to keep their products in godowns during peak season and get credit facility by pledging their produce till remunerative prices prevail for their produce. Besides, awareness programme should be conducted for educating the policy changes because the farmers are unaware of implementation procedures and benefits of pledge loan scheme, revolving fund scheme, etc.

4. In the study area, the farmers are getting insufficient information regarding prices of their produce, which shows larger variation in daily prices and across different markets. As a result the farmers most of the times dispose of their produce at the prevailing price. Therefore, it is suggested that there is an urgent need to set up efficient market information network so that farmers can get timely and adequate market related information which will help them to get better prices for
their produce. If they get the market information about their produce, they would be able to know the real situation of their produce and could decide to take the produces to high price distant markets. If proper market information is combined with warehousing facilities including advancing of short term loans, the market arrivals will be evenly spread throughout the year and prices will not be subjected to undue fluctuations.

5. The market committees of the select district should represent all the vested interests like farmers, traders and others. A suitable election system should be devised to make the market committees really powerful. They should be empowered to initiate development of activities by mobilizing resources. With a view to providing a regular and uninterrupted democratic bent in the working of regulated markets, it is suggested that the election of the market committees to be held regularly on the expiry of their term. The statutory provisions of ensuring an absolute majority to farmers in the elections can be really meaningful and effectively only when they fully understand and realize their rights and responsibilities. Thus, the farmer members, elected to the market committees, should be literate and well versed with the general problems of the agricultural marketing. With a view to achieving this objective, it is suggested that there should be short-term
training programmes for the farmer representatives of the market committees.

6. The regulatory and development functions of the regulated markets should be separated as they call for different sets of policies and strategies. It may be noted that the development function requires long-term strategy and mobilization of resources. On the other hand regulatory function is basically restrictive in nature. In this context it may be appropriate to have a separate body specializing in development of infrastructure.

7. Transport is the most important factor in the marketing of agricultural produce, which has to be carried from producing areas to regulated markets. Majority of the farmers face a number of problems while transporting their produce due to lack of vehicles, over demand for vehicles and the absence of neat metalloid roads. It is therefore suggested that the transport facility should be increased on a large scale to facilitate marketing of agricultural produce on one hand and reduce losses due to spoilage of the crops on the other hand. Therefore, the market committees of the select district should take up the programme of construction of link roads in their market area. This will facilitate increase in the quantum of market arrivals for transactions in the market yards.
8. As regards payment of sale proceeds to the farmers, the Act provides payment on the day of sale itself. However, in practice it is implemented in the case of marginal and small farmers only. While there is delayed payment to the farmers, the commission agents generally depend on the late payment on the ground of low commission charges and the traders making payment after some delay. It should be noted that on paper all farmers are shown to have been paid promptly on the day of sale. In practice, there is considerable delay. There is some collusion among the commission agents as a result of which some commission is charged for immediate payment. This reduced the net income of the farmers and discourages them from selling their produce in regulated markets. Therefore, possibilities to make spot payment to the farmers need to be explored. Spot payment is necessary; otherwise farmers look for alternative selling arrangements, which lead to loss of income to the market committees. Introduction of ‘Clearing House Scheme’ with the help of merchant association may help in this direction.

9. One of the social responsibilities of the market committees should be to improve the economic conditions of the farmers through provision of community development services and for this substantial amount should be provided by market committees out of their net profit. The market committees also shall look after the social needs of the area in
which they functions such as those of providing education, recreational and cultural facilities and amenities. Temples, school buildings, dispensaries, meeting halls, parks and open spaces should be provided for the use of the people of the area.

10. Marketing of agricultural produce under the regulation cannot be achieved in the absence of minimum viable market yards. Therefore, it is suggested that the market committees as soon as possible try to construct and develop their market yards. Construction of market yards must be as per design and layout as prescribed in this respect. All necessary facilities and amenities such as drinking water, canteen facility, communication facility and so on as per norms must be provided in these newly constructed market yards.

11. Inputs by fertilizers, agricultural implements, insecticides, pesticides and improved seeds should be made easily available to farmers if possible on credit on the guarantee of the market committees. Proper supervision should also be made that these inputs are properly utilized or else the defaulting procedures should be disciplined.

12. The professional management of markets concept has to be started by recruiting qualified staff under common cadre and be posted at different regulated markets for management of markets. The major function of regulated market should be to professionally manage the
market. Hence, there is a need for defined structure which can accommodate existing permanent employees of these organizations. Moreover, public-private partnership in management and operation of regulated markets should be piloted at important markets for professional management of markets. Provision for such arrangement need to be made in the Act and rules are to be framed for the effective partnership.

7.4. Conclusion

Agriculture constitutes the core of the economy in most of the developing countries. Constructive progress in their agricultural sector is an indispensable prerequisite for the rapid economic growth and rural development of these countries. So as to achieve this, developing countries now aim at restructuring their agricultural sector along a successful line. India being a developing country is no exception to this phenomenon. Agriculture being the primary sector is the mainstay of the Indian economy and is central to all strategies of its planned economic development. In India, efforts to develop agriculture seem to be directed more towards production than marketing. But, it has to be realized that even the most sophisticated production system would be incapable to attain and maintain its peak efficiency levels, if the distribution system fails to function at the desired level of efficiency. Therefore, the success of any agricultural
development rests ultimately on the efficiency of the marketing system. In this context, an attempt has been made to study the working of regulated markets in select districts in Tamil Nadu. For this reason 480 farmers were selected from 8 regulated markets. The study reveals that majority of the respondents are highly dissatisfied with the working of regulated markets, followed by dissatisfied and neither satisfied nor dissatisfied with the working of regulated markets in select districts in Tamil Nadu. The farmers encountered numerous problems while marketing their produce at the regulated markets. Provision of agricultural input shops, provision for drinking water, provision of credit facility, provision of canteen facility, supply of market information, provision of communication facility, farmers’ development and welfare programme, facilities for grading and standardization, training to farmers and staff, establishment of rural godowns, prompt payment and good maintenance of rest sheds will make certain the efficient functioning of select regulated markets.

7.5. Scope for Further Research

In the course of the literature survey and field study, it is found that the regulated market is gaining momentum in the recent years. As this study is confined to 8 regulated markets in 3 districts of Tamil Nadu, the findings cannot be generalized in a wider context. Hence, in order to generalize the study at the national level, a nationwide investigation that covers all regions
is suggested. The general belief is that the pitfalls of agricultural marketing are essentially born out of ignorance of farmers. Therefore, there is an urgent need to investigate this aspect, particularly the farmers’ awareness side of agricultural marketing. A further study on the perception of the farmers towards agricultural marketing policies would also be undertaken as this would assist in effective agricultural marketing in general and regulated markets in particular. Further the perception of the traders and the officials of the regulated markets may be studied to bring the real picture of the working of regulated markets. The above list is illustrative of the potential for further research.