SUMMARY OF FINDINGS

The study of resource management & marketing strategies with particular reference to floriculture industry in Karnataka has made an attempt to highlight the issues in and the magnitude of problems and prospects of this sector and also suggesting appropriate measures for tackling the problems of the growers and improving the floricultural industry and contributes to build primary literature in the field. Keeping the above issues, the present study has examined the following broad objectives

- To study the scope of floriculture industry with particular reference to Karnataka
- To study the problems and prospects of floriculture industry in Karnataka
- To study the resource management with particular reference to floriculture industry
- To study the extent of marketing avenues in the global market

The following are the findings of the study

1. The study finds that a significant majority of the respondents belong to the age group of 35 to 45 years and 25 to 35 years. The average age group of respondents in the floriculture industry are people who are still young and energetic and belong to the robust youth of India contributing to the demographic dividend of the country.

2. Significantly majority of the individuals involved in the floriculture business are those who are directly involved with trade or growing of flowers. Their
involvement and contribution to the business is significant as they take on issues relating to the business seriously and participate in the affairs relating to the floriculture industry and business.

3. Majority of the respondents earn an income of less than 1 lakhs per month indicating a fair share of income earned by them through floriculture.

4. The floriculturist is typically one who is directly involved in the floriculture, and earns an annual income of about 8 to 12 lakhs per annum with a few individuals earning higher sums per annum.

5. Majority of the respondents have studied up to only Pre-university or less, however a sizeable number of respondents are graduates indicating that floriculture business attracts a fair number of literates and fosters people with a good understanding of plants and agriculture as the business requires some insight into not only cultivation and growing of flowers but also storing and transportation of the cut flowers and foliage.

6. Majority of the respondents have got associated with the business of floriculture in the last 5 years only. However, a reasonable number of respondents have been involved with the business of floriculture for more than 5 years.

7. It was found that although a sizeable number of respondents have been engaged in the business of floriculture for a reasonably long time, the prospects that floriculture business holds for these farmers and traders seems better than the traditional business they were involved in, to dwell into floriculture business in recent times.
8. The turnover of individuals involved in the floriculture business are generally higher with close to 90% of the respondents having turnover higher than 10,00,000 and more than fifty percent of these individuals have a turnover of more than 20,00,000. However, the distribution of individuals with different turnover is spread across evenly.

9. The most popular variety of flowers grown by farmers in Karnataka are Chrysanthemum, Tube Rose and Marigold. Other flower variety that grown by farmers are jasmine, champaka, crossandra and other flowers. Thus we can conclude that farmers in Karnataka are dependent on not just one flower but also many flowers for cultivation. They also grow multiple flowers simultaneously or during one production season. The choice of the crop is probably dependant on multiple factors such as resources available, seasonality, marketability and constraints of resource management.

10. Although flower cultivation has been practiced in India since times immemorial but it is only in the recent years that floriculture has blossomed into a viable business sector. The phenomenon may be attributed to the general level of well being in the country and increased affluence, particularly among the middle class, has led to transformation of the activity of flower growing into a burgeoning industry.

11. The study also finds that the availability of diverse agro-climatic conditions facilitates the production of all major flowers throughout the year in some or the other part of the country.
12. The growth in the sector has not only increased growing of contemporary cut flowers like rose, gladiolus, tuberose, carnation etc but has also led to their use for bouquets and arrangements for gifts as well as decoration of both home and workplace.

13. The study finds that the majority of the respondents do agree that there is a good opportunity for exports in the floriculture business. The positive perception has in turn contributed to the increase in the area under cultivation as well as increase in output.

14. The favourable climatic condition for the production of floriculture products has ensured that Karnataka in general and Bangalore in particular has seen a growth in the floriculture business with many corporate and multinationals setting up their business in Bangalore.

15. The study finds that the individuals involved in the floriculture industry perceive that the extent of profits / revenue generation in floriculture industry is very good. Very few individuals perceive that the opportunity for profits / revenue generation in floriculture business is bad.

16. The perception of respondents on the employment opportunity in floriculture industry was very good. The individuals involved in floriculture business believe that there is very good opportunity to generate employment opportunity and revenue in floriculture business. The diverse set of activities and the varied business engagements that are possible gives an indication of the employment opportunity available in the floriculture business. The opportunities extend from
growing flowers, research through biotechnology, marketing, exporting and selling of floriculture products etc are seen as indicators for the optimism reflected by the response to the availability of employment opportunity in floriculture business.

17. The study finds that the a few individuals involved in the floriculture business perceive that the specialisation required in floriculture industry is very high. However, the study finds that there is a fair amount of distribution in the opinion regarding the specialisation requires with opinions ranging from high specialisation is require to not required at all.

18. The study finds that on the suitability of the climatic condition in and around Bangalore for floriculture industry, respondents opined that Bangalore is very conducive or very good for floriculture industry was questioned. It can be concluded that there is a near unanimity in the opinion of respondents on the suitability of the climatic condition in and around Bangalore for floriculture industry as being very conducive or very good and significantly there is no respondent who does not perceive the suitability of the climatic condition in and around Bangalore for floriculture industry to be not at all conducive or very bad.

19. The study finds that the natural weather conditions and the abundance of other natural resource make Bangalore an ideal place for floriculture business and is perceived as suitable for floriculture industry.

20. The study finds that most individuals identify the floriculture produce take about a year or less than a year for their production indicating that majority of the products
of floriculture can be produced in the short run. There is unanimity in the opinion of respondents on the duration it takes to produce products of floriculture.

21. The study finds that those who grow products of floriculture identify that floriculture requires a fair share of special facilities to produce good quality products which are:

   a. Natural and conducive climatic condition is a special facility that must be available to produce products of floriculture industry.
   
   b. Higher efforts in monitoring of produce during growth and harvesting is a special facility or amenity that must be available to produce products of floriculture industry.
   
   c. Special Manure/ growth agents must be available to produce products of floriculture industry for production of good quality products.
   
   d. Green house or controlled environment must be available to produce products of floriculture industry to ensure good quality products.

22. The study finds that among the many factors that are critical for floriculture industry, the cost of production, storage, Creating and monitoring of controlled production and storing environment, Vagaries of climate, Availability and application of technology, Pest control play a major role in storing of floriculture products.

23. The study finds that among those who grow products of floriculture a majority of respondents perceive that the major issue in the marketing of flowers, foliage etc, is marketing intelligence and communication relating to the produce, exporting of
produce, packing and packaging of produce, quality of produce and shelf life of the produce.

24. The study finds that among those who grow products of floriculture a majority of the growers’ state that they receive no assistance from specialised agencies towards the activities of floriculture business or industry. However, a fair number of respondents do agree that they do receive assistance from specialised agencies.

25. On the question of the source of finance for their operations, the study finds that among those who grow products of floriculture a majority of the growers’ state that they use their own source of finance rather than any other sources. However, a few floriculturists do borrow from public sector banks and cooperatives banks and societies as well as money lenders, individuals and relatives to finance their cultivation activities.

26. On the question of the source of supplies for their majority use locally procured supplies and not imported supplies.

27. Among those who obtain supplies substantial majority of them state that they do receive after sales service. Very small segment of those who receive supplies stated that they do not receive after sales service. It may be inferred that there is a significant majority of respondents who procure supplies do receive after sales service. It can be inferred that there is a significant positive response from the supplier in providing after sales service.

28. Among the traders and florists dealing with products of floriculture majority state that it takes 7 months to 12 months to produce crops or products of floriculture i.e.
a year or less than a year indicating that majority of the traders and florists are aware of the time it takes to produce products of floriculture. They are also aware that natural and conducive climatic condition is a special feature that must be available to produce products of floriculture industry and that the produce requires special Manure/ growth agents must be available for their production such as a green house or controlled environment,

29. The study finds that among the growers of the products of floriculture, a significant majority perceive that the Cost of production /storage is a major issue in the growing and storing of flowers, foliage etc., in floriculture industry. Similarly, creating and monitoring of controlled production and storing environment, vagaries of climate is a major issue in the growing and storing of flowers, foliage etc., availability and application of technology, Pest control are major issues in growing and storing of flowers, foliage etc., in floriculture industry.

30. Among the traders and florists a significant majority state that the major issue in the marketing of flowers, foliage etc, in floriculture industry are quality of produce, distribution and sale of the produce and shelf life of the produce. A small percentage of the individuals do perceive packing and packaging as well as exporting of produce as a major issue in the marketing of flowers, foliage etc.

31. Among the traders and florists, majority state that they receive no assistance from specialised agencies towards the activities of floriculture business or industry.
However, about one third of them state that they do receive assistance from specialised agencies towards the activities of floriculture business or industry.

32. The study finds that among the traders and florists, a majority of respondents state that they use their own source of finance rather than any other sources. A small percentage of respondents are borrowing from public sector banks and cooperatives banks and societies. However a number of respondents use other sources of borrowing such as money lenders, individuals and relatives to finance their cultivation activities.

33. Among those who are agents dealing with products of floriculture, the study finds that their awareness of the duration it takes to grow the produce is very high. They are also aware of the nature of the produce and the factors that impact the quality, storage, transportation, marketing and distribution of the produce. The agents consider the following factors as critical and important for the products of floriculture industry. The factors are natural and conducive climatic condition, higher efforts in monitoring of produce during growth and harvesting, special Manure/ growth agents and green house or controlled environment. The agents also identify that the major issues in growing and storing of floriculture products are cost of production, storage, creating and monitoring of controlled production and storing environment, Vagaries of climate, availability and application of technology and Pest control.

34. The study finds that among those who are agents, a significant majority state that the major issue in the marketing of flowers, foliage etc, in floriculture industry is
quality of produce, distribution and sale of the produce, facilities for conduct of transactions at market places as the most emphatic issue in marketing of flowers, foliage etc. Similarly, the shelf life of the produce, Market Intelligence, Communication and exporting are major issue in the marketing of flowers, foliage etc.

35. The study finds that among those who are agents all of them (100%) have stated that they receive no assistance from specialised agencies towards the activities of floriculture business or industry. None of the agents’ state “Yes” they receive assistance from specialised agencies towards the activities of floriculture business or industry. Among the respondents who are receiving some sort of assistance from specialised institutions, the study finds that the institutions providing assistance are the state government, APEDA, National Horticulture board and NABARD.

36. From the above table we find that majority of the respondents are very optimistic on the scope for floriculture business in Bangalore. The study finds that 45.33% of the respondents perceive the scope for floriculture business in Bangalore to be very good. 27.33% of the respondents perceive the scope for floriculture business in Bangalore to be good, 15.33% of the respondents perceive the scope for floriculture business in Bangalore to be fair or average, 10.67% of the respondents perceive the scope for floriculture business in Bangalore to be moderate to bad and 1.33% of the respondents perceive the scope for floriculture business in Bangalore to be Very bad. It may be inferred that there is an air of optimism in the scope for
floriculture business in Bangalore with 72.66% of the respondents indicating there is very good or good scope for floriculture business in Bangalore. The bludgeoning growth of Bangalore as also being the nodal IT centres for the world has attracted a number of corporate entities to Bangalore. Such feature, mingled with the cosmopolitan population that is present in Bangalore has resulted in such optimistic prediction among respondents on the scope for floriculture business in Bangalore.

37. The study finds that among those who are involved in the business of floriculture in different capacities such as traders, florists, growers, exporters etc, 92% of them have visited the flora expo held at different locations. Only 8% of the respondents have not visited any of the flora expo. It may be inferred that there is a significant importance given by the respondents towards visiting flora expo as a near absolute majority of respondents have visited the flora expo. Typically the flora expo seems to be a window through which the knowledge, understanding and state of technology in use, product variety etc are made known to the growers and traders as also it gives an insight into their current state of technology product options, market options etc which they may be able to take advantage of by interacting with the participants and potential customers and clients.

38. The study finds that among those who are involved in the business of floriculture in different capacities such as traders, florists, growers, exporters etc, 90% of them do not receive or have any foreign collaboration or foreign technology to assist in their production and product handling process. Only 10% of the respondents have
stated that they do have foreign technology for production or handling of floriculture products. It may be inferred that there is a significant majority of the respondents who do not have exposure to foreign technology and majority of them are using indigenously available technology for production and handling of the floriculture products. Although it may augur well to apply indigenous technology for production of products, to ensure greater productivity, and longevity of the shelf life of the product, and also the ability to withstand the rigors of packing, packaging, it is necessary to look for advanced technology. Considering the advancements in bio technology and chemical engineering world over, is well known that such of these technologies have a significant impact on the longevity of the products and also its ability to withstand the rigors of its handling.

39. The study finds that among those who are involved in the business of floriculture in different capacities such as traders, florists, growers, exporters etc, 86% of them have stated that frequent power cuts impact not only the product quality but also the production of floriculture products. 14% of the respondents have stated that frequent power cuts do not impact the production or the quality of product. It is interesting to observe that 14% of the respondents have stated that power cut does not impact the quality of production or product quality. The inference one may draw on account of this finding is that the producers of traditional flowers and floriculture products are not comprehensively dependant on the supply of continuous power as against those who produce modern and highly technology intensive floriculture products. Therefore some of the respondents have chosen to
state that the power cut does not impact the quality of production or product quality. However, there are a significant number of respondents who are of the opinion that power cut does impact the quality of production or product quality. Floriculture products that are produced in controlled environment, those that require high quantum of water or humidity etc require power to ensure a healthy production and output. The respondents have rightly pointed out that the power cut does impact the quality of production or product quality.

40. The study finds that among those who are involved in the business of floriculture in different capacities such as traders, florists, growers, exporters etc, 86% of them have stated that frequent power cuts impact not only the product quality but also the production of floriculture products. 14% of the respondents have stated that frequent power cuts do not impact the production or the quality of product. It is interesting to observe that 14% of the respondents have stated that power cut does not impact the quality of production or product quality. The inference one may draw on account of this finding is that the producers of traditional flowers and floriculture products are not comprehensively dependant on the supply of continuous power as against those who produce modern and highly technology intensive floriculture products. Therefore some of the respondents have chosen to state that the power cut does not impact the quality of production or product quality. However, there are a significant number of respondents who are of the opinion that power cut does impact the quality of production or product quality. Floriculture products that are produced in controlled environment, those that
require high quantum of water or humidity etc require power to ensure a healthy production and output. The respondents have rightly pointed out that the power cut does impact the quality of production or product quality.

41. The study finds that 48% of the respondents perceive the packing cost of floriculture products to be very costly. 8.67% of the respondents perceive the packing cost to be very high, 39.33% of the respondents perceive the packing cost to be high amounting to a total of 48% thus a significant majority of the respondents perceive the packing cost to be very high. 25.33% of the respondents perceive the packing cost to be moderate, 19.33% of the respondents perceive the packing cost to be low and 7.33% of the respondents perceive the packing cost to be very low. Packing cost is a significant part of the total cost of the floriculture product. Packing cost reduces the margin. The packaging of the products add to the total cost. Therefore a significant quantum of attention needs to be given by the producers, dealers, florist and others towards the cost of packing and packaging. The study significantly finds that a majority of the respondents have stated that the packing cost is high. Although there are a sizeable number of respondents who have stated that the packing cost is low, it needs to be noted that the traditional flowers do not require a significant or special type of packing which the modern flowers do require. Therefore it is not very surprising to find that some of the respondents have stated that the packing cost is Low.

42. The study finds that among those who are members at the auction centre totalling 133 respondents, 70.68% of the respondents have faced no problem at the auction
centre. However, 29.32% of the respondents have faced problem at the auction centre. The study significantly finds that 70.68% of the respondents have stated that there is no problem in at the auction centre. However, 29.32% of the respondents who are members at the auction centre have stated that there are problems at the auction centre. The reason for stating that there are problems at the auction centre could be that the procedures are cumbersome.

VALIDATION OF HYPOTHESIS

1. FLORICULTURE INDUSTRY PRESENTS VERY GOOD OPPORTUNITY FOR EXPORTS:

The hypothesis that floriculture industry presents a very good prospect and opportunity for exports is validated with the response a significant majority of the respondents do agree that there is a good opportunity for exports in the floriculture business. The hypothesis is further validated by the weighted mean score of 3.746 indicating a value closer to good indicating that floriculture as an industry very good prospect and opportunity for exports.

2. FLORICULTURE INDUSTRY OFFERS GOOD INCOME EARNING POTENTIAL:

The study finds that the extent of profits and revenue generation in floriculture industry was good thus validating the hypothesis. The weighted mean score of the
responses of 3.953 indicates a value closer to good thus revalidating the hypothesis that floriculture as an industry presents a good prospect in terms of the extent of profits and revenue generation.

3. FLORICULTURE INDUSTRY GENERATES GOOD EMPLOYMENT OPPORTUNITY:

The perception of respondents on the employment opportunity in floriculture industry was good thus validating the hypothesis that floriculture industry generates good employment opportunity. The weighted mean score is 4.307 indicating a value better than good further validates the hypothesis indicating that floriculture as an industry is a good prospect in terms of employment opportunity.

4. KARNATAKA MORE SO BANGALORE HAS THE MOST CONDUCIVE ATMOSPHERE FOR CULTIVATION OF FLORICULTURE PRODUCTS:

The table above and the finding that a substantial majority of the respondents indicate that Bangalore has a highly conducive atmosphere for cultivation of floriculture products validates the hypothesis. The weighted mean score is 4.52 indicating a value closer to 5 which indicates highly conducive also substantiates the hypothesis that the suitability of the climatic condition in and around Bangalore for floriculture industry is highly conducive.
CONCLUSIONS

It can be inferred that a significant number of individuals view floriculture business as a good prospect and seem to entered the business of floriculture in the recent past only. The revenue generated, the short cultivation cycle, cost benefit seems better in the business floriculture attracting a larger number of cultivators, farmers and business men into the business of floriculture.

The limited turnover that subsists among the individuals involved in the floriculture business (sizeable number of respondents have a turnover of less than 20,00,000) indicates a marginal net revenue and consequent net income for sustenance. This poor turnover and consequent net revenue could be an inhibiting factor stunting the growth of floriculture business.

The study concludes that farmers in Karnataka are dependent on not just one flower but also many flowers for cultivation. They also grow multiple flowers simultaneously or during one production season. The choice of the crop is probably dependant on multiple factors such as resources available, seasonality, marketability and constraints of resource management.

The study concludes that the awareness of the utilities of floriculture as a good business prospect has been realised by not only individuals involved in the business and corporate who have recognised the business potential of floriculture and have begun to
increase their investment in the floriculture business. There also seems a transition in the use and application of flowers from adorning gods and heads of ladies to varied ornamental and decorative purposes.

The Study finds that that not only has the area under cultivation increased but also the quantum of output across India has increased. Therefore it maybe concluded that the popularity of production of flowers is gaining an increased acceptance and indicating the contribution the widespread realization of the potential of floriculture and specific products of floriculture.

It can be concluded that the people involved in floriculture business believe that there is very good opportunity to make profits and generate revenue in floriculture business. Although the specifics reason will have to be surmised as to why they perceive so, the reasons for such favourable perception may be on account of turnover in the business, high margins and the scope for exports and entry into foreign markets. These reasons give sufficient reason for the buoyant feeling of revenues and profitability.

The concludes that there is very good opportunity to make employment opportunity revenue in floriculture business encompassing a diverse set of activities and the varied business engagements that extend from growing flowers, research through biotechnology, marketing, exporting and selling of floriculture products etc.

It can be concluded that there is a mixed expression to the requirement for specialisation in floriculture business. The diverse set of activities and the varied business engagements also define the level of specialisation required for handling the activity,
process, business or other engagements relating to floriculture business. Thus the need for specialisation is fundamentally dependant on the nature of engagement of the respondent in the floriculture industry. For example growers require a higher level of knowledge relating to the cultivation and production of specific products and their sensitivity towards the specialisation required in the floriculture business will be high. On the other hand a person who just operates a business of trading in the products of floriculture may not be able to appreciate the quantum of specialisation required. Thus the finding of mixed responses may be justified on the basis of level of knowledge and the type of engagement of the respondent in the business of floriculture that defines the expression of specialisation required in floriculture business.

There is unanimity in the opinion of respondents on the duration it takes to produce products of floriculture. However, the produce is a factor of investment made in resources that help in cultivation and production of floriculture products. Therefore the duration of the produce takes an important dimension of provision of liquidity as well as source of finance

It can be inferred that there is consensus among respondents that there is a need for special facilities to produce good quality floriculture products. It is easily recognisable that the perishable nature of the floriculture products and the applications for which the products of floriculture are used need special facilities and amenities for not only the production of the floriculture product but also the longevity of the shelf life of the produce and safety of the produce during transportation and storing of the produce before
sale. Thus the finding correlates aptly to the essential features that make the industry of floriculture in terms of the care to be taken during cultivation, production and harvesting, storage, transportation, distribution through retail indicating the special investment that needs to be made in resources and time for good quality produce of floriculture products.

Typically the problems faced by floriculturists include Vagaries of climate, Pest control, Creating and monitoring of controlled production and storing environment, Cost of production, storage and availability and application of technology.

It can be concluded that most individuals involved in floriculture business especially the growers who cultivate and store the produce till sale, do face significant problems in marketing of flowers and foliage etc. Typically the problems include distribution, Export, Quality of produce, Packing and packaging and Shelf life. However, the extent to which the problem is recognised depends on multiple factors such as the size of the organisation, markets in which the respondent is engaged in floriculture activity etc. However being producers of floriculture products, they may have hindrance of distance and communication that causes many of the problems relating to the marketing of the floriculture produce.

The study concludes that there is a significant majority of respondents who use their own source of financing for production and cultivation of floriculture produce. However, a deeper scrutiny of the findings suggests that the respondents may be using multiple sources of financing such as a combination of more than one source for their financing and growing floriculture products.
The study concludes that a significant number of individuals use locally procured supplies for their production requirements. Inhibiting factors such as cost, import procedures, understanding of the technology and also the ability to use the technology etc. could be preventing them for using the imported technology. The conclusion also needs to be tempered with the fact that government is not averse to introduction of new technology into the country which may be counterproductive to such farmers who are dependent on locally available technology rather than imported as may be seen in the BT brinjal.

The study concludes that a large number of traders and floriculturists are aware of the time it takes to produce products of floriculture also significantly emphasising the awareness of the time and trouble it takes to produce the floriculture products as also the value traders and florists do place on the produce. Considering the fragility of the floriculture produce, it may be concluded that the traders, florists and floriculturist understand the value of the produce and the difficulties through which the produce is obtained and packaged and packed for distribution and marketing and trade of the produce.

It is evident from the study that floriculture requires a fair share of special facilities to produce good quality products. There is consensus among traders and florists that the perishable nature of the floriculture products need special facilities and amenities for not only the production of the floriculture product but also the longevity of the shelf life of the produce, safeguarding the quality of the produce during transportation, storing
and trade of the produce till time of sale. Trades being in direct contact with customers also realise the need for maintaining the quality of the product as it has a direct impact on the sales. It is therefore no surprise that they understand the special requirements of the product relating to the industry and have responded appropriately. The study concludes that individuals involved in floriculture business especially the traders and growers, who cultivate and store the produce till sale do face significant problems in growing and storing of flowers and foliage etc. Typically the problems include Vagaries of climate, Pest control, Creating and monitoring of controlled production and storing environment, Cost of production /storage and availability and application of technology. The study also concludes that are sensitive to the issues that have a direct impact on their ability to sell the product such as the quality of the produce, distribution and points sale facilities as critical problems in the marketing of flowers and foliage.

The agents play a critical role in the physical transfer of the floriculture produce and therefore their awareness of the time it takes to produce the product as well as the nature of the product in terms of its fragility or ability to wither away quickly makes a significant impact on the urgency with which the transactions are done and the transfer of goods are executed. The agents are also aware of the fragile nature of the floriculture products, special facilities and amenities for not only the production of the floriculture product but also the longevity of the shelf life of the produce, safeguarding the quality of the produce during transportation and storing and transfer of the goods from producer to the ultimate consumer. Just as traders are in direct contact with customers the agents are
middle men who need to interact with both producers and retailers or consumers and therefore they realise the need for maintaining the quality of the product as it has a direct impact on the marketability of the produce. The agents depend on the resources of the producer or customers for performing his agency function and therefore the response has been put forth that there is no need for special facilities for floriculture business. Agents being middle men, may not always be directly involved with the produce handled by them. However, they have profound and through knowledge of the product they are handling, lest the customer may slip by for want of better information.

The study concludes that there is concurrence in the responses of agents, growers, exporters, traders and florists on most parameters relating to the production, growth, storage, marketing and distribution of the products of floriculture.

The study concludes that the availability subsidies, concessions, technology, market information and assistance in marketing are typically available to all the individuals involved in floriculture industry. However it is noted that many have not availed of the facilities on account of lack of aware of the facilities available to them as well as unwillingness to take up such facilities on account of the constraints such facilities may impose on their conduct of business. The financial assistance obtained by the growers, traders and florists are not encouraging. The study finds that most of the individuals have not received financial assistance from specialised agencies towards their business. There is no doubt on the role these specialised agencies play and the nature of engagement these organisations are involved affect significantly the progression of these individuals as well as the floriculture industry.
The study concludes that a significant majority of traders and florists use their own source of financing for marketing and sale of floriculture produce. The multiple response given by the traders indicate that they are using multiple sources of financing such as a combination of more than one source for their financing of growing floriculture products. For example they may be using own sources as well as borrowing from a bank or borrowing from other sources to augment the financial resource needed for their day to day trade and marketing of the produce. The study also finds that a significant majority of agents and florists also use their own source and borrowed resources for financing of their marketing and sale of floriculture produce as agents. The response clearly indicates that the agents are using only own sources of finance and borrowing from other sources to augment the financial resource needed for their day to day trade and marketing of the produce.

The study finds that a significant majority of respondents have not received any assistance from the agencies appointed for the purpose of assisting agricultural and specifically floriculture products and services. The finding is also indicative of the state of affairs in terms of facilities available to the farmers of floriculture products and their ability to not only produce floriculture products or service but also their ability to market the products to more profitable markets. It therefore becomes an imperative for these agencies to project the services rendered by them to the target group of individuals especially those involved with floriculture to enable them take advantage of the specialised services
The study concludes that a significant majority of agents who, being directly involved with marketing have been more sensitive to the issues that have a direct impact on their ability to sell the product. Typically they have highlighted the issue of quality of the produce, distribution and point of sale facilities as critical problems in the marketing of flowers and foliage. As compared with growers, the agents have not reflected much on market intelligence and communication or export as very critical. The reason could be that they are in direct contact with the market events, akin to that of traders, on a real time basis and their personal and professional networks help them in obtaining the necessary information for decision making and day to day operations.
CONCLUSIONS

SCOPE OF FLORICULTURE INDUSTRY:

A significant number of findings of the study give an understanding of the scope of floriculture industry. The scope of floriculture industry covers dimensions such as income generation, employment generation, export promotion and related contributions. The significant findings that lend themselves to the understanding of the scope of floriculture industry are:

- The finding that the average age group of the floriculturists is less than 45 years with a significant number of them belonging to the age group of 25 to 35 years suggest the existence of a young and motivated group who see their aspirations and goals achievable through the floriculture business.

- Many of the individuals are directly involved in the trade or growing of floriculture products. The dynamism and risk taking ability of the group in conjuncture with prospecting in floriculture business is a good sign of the potential and scope of floriculture business.

- The scope of the floriculture industry and business can also be gauged by the capacity of the industry for income generation. The finding that a significant majority of them have income of fifty thousand to one lakhs is a good reflection of the potential for income generation and scope for earning and lively hood in the floriculture industry.
The diverse educational background ranging from uneducated or illiterate to the very literate coupled with the duration the floriculturist have been involved in growing traditional and modern flowers shows that there has been a spike in the farming of floriculture products in the last five years lends itself to the conclusion that not only enables the conclusion that with greater number of educated and young youth are getting involved in the production and marketing of floriculture products. Technology supported farming of floriculture products have been most profitable on account of the quality of output and exports.

The shifts in the cultural fabric of the country where in the tradition is overlapped by the modern behavioural overtures, such as the use of flowers for religious occasions to the personal decoration has moved to other areas such as decoration, gifts to express various sentiments have enhanced the scope of floriculture industry which now supports not only the cultivation and marketing of traditional flowers but also the modern flower of floriculture products though green house cultivation.

The diverse agro-climatic conditions spread across the country and conducive soil across different locations factored with appropriate technology has facilitated the spread of the knowledge of floriculture business and its cultivation across India thus enhancing the scope of floriculture product and production in our country.

The scope of floriculture industry is further enhanced by the growth potential in the sector has not only facilitated the cultivation of contemporary cut flowers like rose, gladiolus, tuberose, carnation etc but has also led to the genesis of other
related trades such as bouquets and arrangements for gifts as well as decoration of both home and workplace for events. Bangalore has emerged as a floriculture hub on account of suitability of the climatic conditions and presence of related professional organisations such as IFAB, APEAD, NHM etc.

- The ability of Indian floriculturists’ for production of floriculture products, capacity, employment generation and favourable climatic condition for the production of floriculture products has ensured that Karnataka in general and Bangalore in particular has seen a growth in the floriculture business with many corporate and multinationals setting up their business in Bangalore reflecting the scope of floriculture as a prospective business.

- special facilities to produce good quality products which are (1) Natural and conducive climatic condition (2) monitoring of produce during growth and harvesting(3) supplementing of produce with special Manure/ growth agents and their availability for the produce and products of floriculture industry considered essential for production of good quality products have enhanced the scope of floriculture at Bangalore and Bangalore district and surrounding areas.

PROBLEMS AND PROSPECTS OF FLORICULTURE INDUSTRY

Although the scope for floriculture are encouraging and needs to be supported by the government and governmental agencies and specialised institutions, the survival and success of the industry is dependent on the problems that plague the industry and their
solution as well as the prospects of the industry. The following is the extract of the findings that enable identification of the prospect and problems of floriculture industry. The success of floriculture industry is dependent on the ability of the administration and or the government to address the critical factors that impact the survival and growth factors that are critical for floriculture industry such as the cost of production, storage, Creating and monitoring of controlled production and storing environment, Vagaries of climate, Availability and application of technology, Pest control play which have ban identified by the respondents as critical.

**PROBLEMS**

The study finds the floriculture industry is draught with numerous issues that seem to be a deterrent for realising to full potential of the industry and its capitalisation of the industries potential in world trade through exports.

- The investment requirement for obtaining quality output of products that can be exported is outside the scope of most of the small and medium farmers and who operate with small or marginal land holdings. The construction of production facility that permits controlled environment such as green houses, maintenance of temperatures suitable for the growth of floriculture products, monitoring of the produce during its growth etc are expenses that are considered prohibitive for many of the marginal farmers who often invest time
and money in cultivation of traditional flowers under traditional methods of cultivation.

- Some products require technology inputs that will have to be obtained from foreign countries and have acted as a deterrent to the induction of such technology due to cumbersome import process, restrictions and cost constraints. The imperative is the existence of technologically sound manpower for the application and use of the technology that may have to be imported, availability of such technology are typically the problems that cultivators and marketers of floriculture products in Karnataka face.

- The shelf life of most floriculture products are short making it mandatory to establish and create suitable storage facility. The lack of such storage facility in suitable and convenient locations is causing difficulty in storage as the products which mandatorily require special storage facility such as cold storage, to prolong the shelf life of the products. The creation of such facility proximate to the area of cultivation of the produce will enhance the prospects for the floriculture industry in Karnataka.

- The cost transportation of these products is prohibitive as they require special containers during storage and transportation. Unlike Norway which has special chartered flights to transport floriculture products to various destinations across the globe, India depends on cargo flights and needs to fight it out with other cargo for its transportation. This in itself creates a bottleneck for export of floriculture products.
• Lack of availability of marketing intelligence and communication relating to the produce, exporting of produce, packing and packaging of produce, quality of produce and shelf life of the produce.

• The floriculturists do not receive any assistance from specialised agencies towards the activities of floriculture business or industry. Only a fair number of respondents do agree that they do receive assistance from specialised agencies.

• The gestation time for floriculture produce is around 7 months to 12 months to produce crops or products of floriculture implies that the investments made are blocked for that duration and the cultivation activity needs to be sustained for the entire duration without any cash inflow from the business mandating that the working capital requirement has to be managed from own sources of funding.

• The high cost of production and storage is a major problem in the growing and storing of flowers, foliage etc., in floriculture industry. Similarly, creating and monitoring of controlled production and storing environment, vagaries of climate is a major issue in the growing and storing of flowers, foliage etc., availability and application of technology, Pest control are major issues in growing and storing of flowers, foliage etc., in floriculture industry

• A major issue in the marketing of flowers, foliage etc, in floriculture industry are quality of produce, distribution and sale of the produce and shelf life of the produce. Consistency in the quality of floriculture products can ensure that the produce are marketable and fetches a handsome revenue and foreign exchange.
• The middle men find the procurement cost of floriculture products high to the extent of it being prohibitive or cuts their profit margins to such an extent that they do not find the business attractive enough for the trouble taken by them.

• Although impetuous has been provided by various governments to bolster and boost the biotechnology industry, the response has not been very positive to Agri-based industry, more so to floriculture industry which has such strength and potential for exports across the globe. Industry players too consider the cost of R&D prohibitive for investment and do not consider the investment viable.

• Most floriculturists find that there is a dearth of specialist who can positively contribute to the betterment of industry production and management of processes and tasks required by the industry.

• The characteristics of the floriculture products are such that it requires quick and efficient transport of the products to its destinations to minimise the cost and extend the shelf life of the product. The lack of direct flights to destination of export minimises the opportunity for efficient export while adding to the cost of transportation and increase of cost and reduction of the shelf life of the products. This constrains the opportunity available to the floriculturists.
PROSPECTS

The study finds that while the floriculture industry is draught with numerous issues that seem to be a deterrent for realising to full potential of the industry there are prospect that can be used to launch themselves into the global pie of the world floriculture market. The primary data collected by the study as well as secondary data have indicated the following findings as positive indicators that needs to be capitalised by the floriculture industry in Karnataka

- There is substantial demand for production of cut flowers for exports.
- Middle men and industry players and regulars must utilise the initiatives of the government which has taken steps to establish EoU and provide suitable facilities and special zones for production and processing of floriculture
- The inflow of capital is estimate to be around Rs 1500 crores of which Rs 55 crores in foreign investments
- Bangalore is one of the high-tech area chosen for floriculture industry on account of its suitability for growing of floriculture products and the availability of support facilities and infrastructure.
- Major quality conscious markets are looking at India as an alternative for their imports
- There is a strong and growing domestic market estimated at 500 crores and is growing at a fast pace.
Indian floriculturists have ensured a dominant presence in Australian market accounting for 60% of the Australian market.

India challenged Holland which is considered the flower capital of the world successfully in exporting roses to Japan accounting for 85% of the market.

Karnataka has the most conducive climate, abundance of land, low labour cost and proximity to markets

RESOURCE MANAGEMENT WITH PARTICULAR REFERENCE TO FLORICULTURE INDUSTRY

The data collected from secondary sources in terms of the availability of resources and resource management practices enables the study to surmise the following findings.

CULTIVATION OF FLORICULTURE PRODUCE:

- The vagaries of weather affect products that are cultivated under the traditional method of cultivation.
- The high capital intensity and availability of technology support for development of production facility affect the prospect of cultivation of floriculture products.
• Sourcing of supplies essential for production of floriculture products often is dependent on foreign suppliers which affect the management of cultivation of floriculture products.

• The availability of qualified and trained manpower for cultivation and production of floriculture products.

• Lack of knowledge and awareness on cultivation process and fear of failure inhibit widespread cultivation of flowers that can be considered near cash crops both in the local market as well as international market.

**STORAGE OF FLORICULTURE PRODUCES:**

• Currently storage facility is available only at IFAB for floriculture products. Creation of additional storage facilities will facilitate the growth of floriculture industry in a big way.

• The lack of storage facility has induces some of the large exporters, cultivators and producers of floriculture products to create their own storage facility.

• The availability of storage facility at convenient locations such as proximate towns or market places will help in the growth prospects for floriculture products.
MARKETING OF FLORICULTURE PRODUCE

- Existence of organised and regulated market structures such as IFAB in more locations with convenience for packing, packaging and transportation of the products
- The existing facility for marketing of floriculture products is available only to the members of IFAB who are limited in number and hence is inaccessible to non-members who are unable to take advantage of the existing infrastructure for marketing their produce in spite of production of good and export quality floriculture produce.
- Lack of market information among the floriculturist on global and local market also results producers and marketers not being able to take advantage of market information and market intelligence available with professional bodies such as IFAB, NHM, APEDA, NHB etc.

FINANCING OF FLORICULTURE BUSINESS

- The financing bodies often hesitate to provide financial assistance to producers and marketers of floriculture business on account of the very nature of the produce which is perishable and has a very short
shelf life. The lack of consistent market price as it varies dependent on the quality of the produce, fluctuation in the exchange value of the currency in export deals create uncertainty and increases the margins retained by financing agencies and reduce the total quantum of finance provided.

- Lack of awareness of financing schemes of Public sector banks and specialised financial institutions such as RRB’s, EXIM Bank, NABARD result in available funds not being optimally utilised.
- Unwillingness of floriculturists in availing financial assistance for floriculture business on account of high risk involved in the floriculture business as well as the high interest rates also contribute to the non-utilisation of finance that are provided by financing agencies.

**SUPPORT SERVICES OFFERED BY THE GOVERNMENT AND GOVERNMENTAL AGENCIES.**

- Government initiatives have been triggered by the realisation of the market opportunity that is available and could be capitalised by the floriculture industry in terms of export potential, suitability of climatic conditions, foreign exchange earnings etc
• Creation of specialised institutions that support floriculture business have facilitated creation of necessary interest and motivation among farmers and agriculturists to involve themselves in floriculture business.

• Policy initiatives and creation of special zones for floriculture business is contributing positively to the growth of floriculture business in India and more so Karnataka which is the highest producer of floriculture produce in India.

• Model floriculture centres have been developed by the government to sensitise and bring about awareness and spread the knowledge of floriculture industry.

**EXTENT OF MARKETING AVENUES IN THE GLOBAL MARKET**

• India has so far been a novice and a slow entrant into the global floriculture business.

• The inroads made so far are too few and far between to make a significant impact on the global market scenario.

• Export market of India have been to select countries in the European market, Japan, Australia and few countries in south east Asia.
- The inhibiting factors are the high cost of logistics involved for administration and execution of orders, storage, transportation and delivery.

The study concludes that Karnataka, more so Bangalore is a highly suitable for floriculture industry and business on account of the following findings made by the study. The members involved in the floriculture product cultivation are also the individuals involved in the marketing and distribution of the floriculture product. The congenial climatic conditions and thrust that the government has been giving to the floriculture industry stand testimony to the prospects of floriculture industry.
SUGGESTIONS

The study has provided valuable insights into the status of floriculture industry in Karnataka and more so in Bangalore, Bangalore rural district and surrounding areas. The following are some of the key suggestions to the stake holders which we hope will enhance the growth and performance of the floriculture industry.

- The involvement of floriculturists in embracing the industry on a global platform is found wanting. Their response to markets across the globe is limited to exposure and confidence levels in dealing with such markets and clients. In this regard it is imperative for all the stake holders to create awareness and sensitise the floriculturists to the prospects of the industry on a global platform and also motivate prudential agriculturists and entrepreneurs to involve themselves in floriculture business

- A number of individuals involved in the floriculture products and markets patronage the local markets and show little interest in the global market for reasons such as access to the market on account of entry barriers such as lack of membership. Encouraging individuals to participate in the process of international trade by giving them relevant exposure and training will facilitate the expansion of the Indian presence in the global floriculture market
- The financing norms for floriculture could be more industry based and resetting of norms for financing and providing innovating financing options could encourage greater participation by floriculturists in the global market.

- Providing access to technology such as temperature controlled environments, building of green house at scales which are small and affordable to marginal and small farmers will enable greater dissemination of technology and understanding of cultivation of floriculture products under such conditions. Although it might yield better quality products in small quantities, in due course it can encourage greater investment by motivated entrepreneurs.

- Encouraging local vendors, florist, cultivators to experiment with new product varieties and cultivation techniques can yield hybrid varieties that can significantly contribute to the diversity in the product and evolving of indigenous variety that are unique to the territory or country.

- Just as research helped in the creation of green revolution, special initiative may be taken by universities, research organisations in developing new variety through appropriate investments in research and development of floriculture products.

- Adoption of networked environments and creation of e-chowpal platforms for trading of floriculture products and providing access to market intelligence and information local and global will enable sensitisation of floriculturists in expanding the scope and market coverage for their products and not just look towards local markets.
• Streamlining of export/import regulation, and provision of in house quarantine certification can help ease the complexity in expanding the floriculture market to a global platform

• Creation of infrastructure for export like fleet of refrigerated trucks, cold storage at airports and pre-cooling facilities etc, will enhance the market access and delivery of quality product to the clients and customers reducing the rejections and enhancing hate value of the product while increasing the shelf life of the products.

• Development and enforcement of quality standards are points of acceptance for trading the product will also enable the market acceptance of the floriculture products an also sensitise the floriculturist on the quality norms and standards to be maintained.

• Allocation of guaranteed cargo space, Incentives to flower exporters-freight subsidy can help motivate floriculturists and traders to take advantage of the opportunity to access global market at competitive cost.

• Extensive international marketing and promotional support, Simplifying export document and billing procedures, Extending insurance coverage to include delayed delivery, Establishment of separate export promotion council on floriculture produces will help in the development of the nascent floriculture industry to grow to greater heights and market standing on a global platform.