Chapter 7: Summary and Conclusion

Introduction.
The previous chapter of the thesis presented in details the analysis and discussions of the research that was conducted on the floriculture firms in Pune. This is the final chapter of the thesis and presents the summary and conclusions of the findings and the generic strategy selection model presented in the previous chapter. Recommendations and suggestions for academics, government and managers are also presented. This chapter also points out the limitations of this research and also identifies areas & scope for further research work.

7.1 World floriculture industry:
The world floriculture industry is very competitive. As per ASSOCHAM the Global floriculture industry is likely to cross Rs 9 lakh crore mark by 2015 from the current level of about Rs 6 lakh crore and is growing at a compounded annual growth rate (CAGR) of 15%. The world production of floriculture is growing at an average rate of 10 percent per year. There are currently, over 50 countries that are active in floriculture production on a large scale. In terms of production value, the Netherlands, the United States, Japan, Italy, Germany and Canada are the largest producers of cut flowers and plants. With China and India having majority of the world acreage under cut flowers and plants production in the world, the Asia-Pacific region has the major share (77 percent) in the total world area under floriculture production.

Europe, USA and Japan are the major consumers of floriculture products. Flower consumption in the United States is relatively low as compared to Western Europe; however, the consumption has been growing consistently. In case of cut flowers, per capita consumption in Japan is the highest, followed by Europe and USA. Germany is the biggest consumer, followed by the UK, France and Italy.

The trade channel for flowers mainly comprise of auctions and wholesale. Auctions have been the most important trade channel for imported flowers. However, in the recent years, trade through wholesale or direct sale channel has been on the rise.
7.2 Indian Floriculture industry:

India is fast becoming a strong centre of floriculture production. Production is principally targeting the growing local market. The large number of flowers commercially grown in India is generally of two types: loose flowers and cut-flowers with stems. Both these types are grown mainly under open field conditions and partly under a protected environment.

Indian floriculture industry will cross Rs 8,000 crore mark, according to a study by The Associated Chamber of Commerce and Industry of India (ASSOCHAM). Floriculture has been identified as a thrust export sector in India in the post-liberalization era. The global markets offer a vast potential and advantages for India. However, India’s share in the international markets for floricultural products is still negligible at less than one percent. India’s floriculture industry is growing at a compounded annual growth rate of about 30%. Currently, the floriculture industry in India is poised at about Rs 3,700 crore with a share of a meagre 0.61 per cent in the global floriculture industry which is likely to reach 0.89 per cent by 2015. (ASSOCHAM) Karnataka, Tamil Nadu, Andhra Pradesh, West Bengal, Maharashtra, Uttarakhand, Uttar Pradesh, Delhi, Haryana, Kerala, Himachal Pradesh and North Eastern states are the major flower growing states in India. Tamil Nadu is the largest loose flower producing state, while West Bengal and Maharashtra are the leading cut flower producing states in India.

Rose is the principal cut flower grown all over the country. Indian farmers grow more than 60 varieties against 168 rose varieties that are grown across the world. Other most important cut flower crops in the country are Gladiolus, Tuberose, Asters, Gerbera, Carnation, Anthurium, Lilium, and Orchid. With a share of about 65% rose flower industry in India accounts for over Rs 2,400 crore of the overall floriculture industry and rose accounts for 75 per cent of the global floriculture industry.

While exports remain the prime motivator for Indian flower cultivators, the demand in the domestic market is also enormous and is on the rise. Modernisation and growing western cultural influences has resulted in consumers, especially the young population in the country buying flowers on occasions like Valentine’s Day, Friendship Day, Mother’s Day, Father’s Day and so on. There is also a huge spurt in demand for flowers during religious festivities. Europe has been the largest destination for Indian floriculture exports, and EU auctions have been the preferred channel for the Indian flower exporters. However, in the recent years, Indian exporting units have been developing and increasing their concentration in the
Japanese and Australian markets, which are reflected in the increase in the export realizations from Japan, Australia and New Zealand, over the past 5 years. Government of India acknowledges the potential of the floriculture industry and has conferred 100% export oriented industry status. This meant tax exemptions to new EOUs and tax holidays on income from floriculture. Tax benefits are offered to new export oriented floriculture companies in the form of income-tax holidays and exemption from certain import duties. The Government is offering various incentives, which have enabled the setting up of a number of floriculture units for producing and exporting flowers. Additionally, there were substantial duty exemptions for imports including cut flowers, flower seeds and tissue-cultured plants.

India is probably the largest producer of flowers after China. Still, India’s present contribution to the global floricultural export market is negligible (0.61%). Nevertheless, floriculture is at present a priority and identified thrust area in India. National policies, budgetary allocation, diversification of horticultural products, liberalized imports are clearly an indication that the country is committed to development in the field of horticulture including floriculture. The cut flower sector heavily depends on foreign markets and therefore only a selected group of entrepreneurs is involved. Producing flowers for the international market requires a strong international orientation and very specific agronomic knowledge.

Floriculture is a labour-intensive activity, wage payment forming roughly one-third of the costs of production. Availability of skilled manpower, interalia, gives India major comparative advantages in the international trade in floriculture.

7.3 Literature review:
The comprehensive review of floriculture sector presented in previous chapter points out that the worldwide floriculture sector is competitive. Barriers to both entering and exiting the sector are low. The costs of switching between suppliers or buyers and between flower varieties are also low. The flower production in most developing countries is destined for developed countries: the domestic market in developing countries is negligible. This put the challenges of the floriculture sector in the theoretical area of internationalization and competitiveness. The sustainability of the industry is therefore determined by the competitive advantages and the strategic behavior. In order to identify the competitive advantages and propose strategies it is necessary to due an external and internal analysis. The objective of
doing external environment analysis in this thesis is finding out the opportunity and threat to the floriculture sector in India and Pune. The understanding of external environment helps to analyze the competitive advantage provided and to device competitive strategies to help grasp the opportunities and prevent the threats. The external environment could be divided into macro-environment and micro-environment. To help identify the strategic behavior it is necessary to conduct macro and micro analysis. The external environment could be divided into macro-environment and micro-environment.

From the literature review it is evident that PESTLE is good method for analyzing the macro environment and Porter’s five force framework is suited for analyzing the micro environment. SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis is a useful tool to generate strategic options and assess the future course of action of a company. Combined with SWOT, PESTLE helps to understand the risk associated with launching a particular product into a market. PESTLE, Porter’s Five Forces, and SWOT all utilize basic frameworks for reviewing a situation entry modes have a major impact on the firm’s overseas business performance, their choice is regarded as a critical international business decision.

PESTLE components are Political, Economic, Social, Technological, Legal, and Environment. The PESTLE analysis is used to identify forces in the macro-environment that are affecting the business at present and are likely to continue to affect the business in the future. The Porter five force model uses the 5 forces that shape industry structure and competitiveness. These forces are: the threat on new entrants, the bargaining power of suppliers, the bargaining power of buyers, the threat of substitutes and competitive rivalry among the existing competitors. These five major factors determine the intensity of competition in the industry and examines how these five actors influence the competitiveness, and what opportunities and threats they will bring to the company. It contributes for the companies to understand their competitive environment, and create their competitive advantages. The five forces model is used to help the firm analyze whether the industry is profitable, what opportunity and threat it will face in the future. SWOT analysis is a framework links the firm’s capabilities to its relevant competitive environment. I.e. the SWOT analysis focuses on evaluating the strategic position of a firm by analyzing its strengths, weaknesses, opportunities and threats. SWOT helps to determine an organization’s
competencies as well as identify future opportunities. It summarizes the key issues from the business environment and the strategic capability of an organization that are most likely to impact on strategy development. Utilizing a situational analysis, like SWOT, with two other forms of analysis such as PESTLE and Porters five force analysis is likely to create a much more accurate, well-balanced final analytic product, often times in the form of strategic insight.

After analyzing the external and internal environments, the firm is able to decide which competitive strategies should be used to achieve its competitive objective. The competitive strategies could be used to “exploit opportunities in the firm’s environment with the firm’s strength, and neutralizes threats in the firm’s environment while avoiding the firm’s weaknesses”. Porters generic strategy is found to be useful to suggest the strategies for further growth and to achieve sustainability. For pursuing a competitive advantage Porter identified three generic strategies: a cost leadership strategy, a differentiation strategy and a focus strategy. Firms can choose from one of the three generic strategies to compete in the marketplace, regardless of the context of industry to gain competitive advantage and are closely related to the capabilities and resources the company posses and uses.

Dunning’s comprehensive multi theoretical framework stipulated that the choice of an entry mode for a target market is influenced by three types of determinant factors: ownership advantages of a firm, location advantages of a market, and internalization advantages of integrating transactions within the firm. Dunning's eclectic, or OLI, theory as applied to entry-mode selection states that firms will choose the most appropriate form of entry into a new international market by considering their ownership advantages, the location advantages of the country under consideration, and the internalization advantages of the particular situation. International entry modes have a major impact on the firm’s overseas business performance, their choice is regarded as a critical international business decision. Each entry mode has implication for the level of control the firm will enjoy over its foreign operations, the amount of investment required, and the degree of risk the firm faces in venturing into a foreign market. The entry modes can be classified and synthesized from each other on key dimensions such as the amount of resource commitment, extent of risk, potential for returns, and degree of control. Firms must choose the entry mode that offers the highest risk-adjusted
return on investment while providing greater control. Hence this research has used PESTLE, Porters Five force model and SWOT framework to analyze and study the external and internal environment. Porters generic strategies is used to to suggest the strategies for further growth and to achieve sustainability. Dunning’s OLI theory and Roots entry mode decision framework are used to understand the internationalization of the respondent firms.

7.4 Structure, Organization and Profile of companies surveyed.

The organizational structure of the floriculture industry in Pune is dominated by Proprietorship and Partnership firms. The floriculture firms in Pune is mainly represented by many small firms and a few large players. It can be observed that 16% firms had more than 50 employees and 56% of the firms have less than 30 employees. Most of the labour is contract labour and hired as per need. All the firms in the sample are growing Roses. Only 24 % of the firms i.e. 9 firms are growing other flowers along with roses. The other flowers which are grown are gerbera, gladiola and carnation.

It is observed that 63% of the firms are having a turnover of more Rs. twenty lakhs and among them 14 firms have a turnover of more than 50 lakhs. Only 8% firms had a turnover of less than 10 lakhs and 29% of the firms had turnover between 10 to 20 lakhs. More than 78% of the firms had more than 50% revenue generated from exports of flowers. Only 22% of the firms had less than 25% revenue generated from export of flowers. This indicates the over dependence of the floriculture sector in Pune on exports. Europe is the most favored destination for exports. It was observed that out of 37 firms 34 firms i.e. 91% of the respondent firms were exporting flowers to Europe. Holland and UK are the most favored destination in Europe for exports followed by Germany. The next destination for exports is Japan which had 24 i.e. 64% of the respondent firms. This was followed by Australia and Gulf. All firms had conducted a feasibility study before launching the unit. The reason for this may be that the report is required for availing subsidy and grants from Government bodies like NHM, NSB, NABARD/APEDA etc.

Thus the floriculture firms in Pune are using export as the mode of entry for internationalization. This is international entry mode can be characterized as a low cost and low control entry mode. The respondents are using using both direct and indirect export modes.
7.5 Hypothesis:
Based on the literature review, research aims and discussions the following hypotheses were developed for testing.

“H1 The floriculture sector in Pune has significant competitive advantage”

An environmental scan using the five forces identifies external opportunities and threats that affect an industry’s overall attractiveness. “The collective strength of these forces determines the ultimate profit potential in the industry, where profit potential is measured in terms of long-run return on invested”. This hypothesis was broken down into five sub hypothesis for each of the Porter’s Five forces. The table 7.1 below gives the summary of the tests of the five sub hypothesis.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Mean</th>
<th>Strength</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 a. The Bargaining power of suppliers is high in the floriculture sector in Pune</td>
<td>2.6</td>
<td>Low</td>
<td>Bargaining power of suppliers is ‘Low’ and competitive advantage of firms is ‘High’ for this force</td>
</tr>
<tr>
<td>H1 b. Bargaining power of buyers is high in the floriculture industry in Pune</td>
<td>3.2</td>
<td>High</td>
<td>Bargaining power of buyers is ‘High’ and competitive advantage of firms is ‘Low’ for this force</td>
</tr>
<tr>
<td>H1 c. Barriers to entry to new entrants are less in the floriculture industry in Pune</td>
<td>2.6</td>
<td>Low</td>
<td>Barriers to entry to new entrants are ‘High’ and competitive advantage of firms is ‘High’ for this force</td>
</tr>
<tr>
<td>H1 d. The floriculture industry in Pune has high threat of substitutes</td>
<td>3.2</td>
<td>High</td>
<td>Threat of substitutes is ‘High’ and competitive advantage of firms is ‘Low’ for this force</td>
</tr>
<tr>
<td>H1 e. There is intense Rivalry among competitors in the floriculture industry in Pune</td>
<td>2.7</td>
<td>Low</td>
<td>Rivalry among competitors is ‘Low’ and competitive advantage of firms is ‘High’ for this force</td>
</tr>
</tbody>
</table>

Table 7.1: Result of Porter’s five force analysis.
Higher strength of the five forces means less competitive advantages for the producers and a less attractive sector. Lower strength indicates significant competitive advantage for the floriculture firms and an attractive sector. It is observed that the Bargaining power of buyers is ‘high’ and the threats of substitutes is also ‘high’ for the floriculture firms in Pune. Thus these two hypothesis are supported by the respondents. Thus these two hypothesis/forces reduces the competitive advantage of the floriculture firms in Pune and make the sector less attractive. However, the bargaining power of suppliers is Low and the barriers to entry are ‘High’. Moreover the intensity of rivalry among competitors is ‘Low’. Thus these three hypothesis/forces increases the competitive advantage of the floriculture firms in Pune and make the sector more attractive.

The grand average of combined strength of these five sub hypothesis comes to 2.8. i.e. strengths of the forces is ‘Low’ thus supporting the hypothesis.

Hence it is concluded that

"The floriculture sector in Pune has significant competitive advantage”

This also makes the floriculture sector attractive for the firms in Pune. The main question is whether this competitive advantage is sustainable? Market growth and competitive advantage are used as indicators for sustainability. Hence the second hypothesis was

H2 “The floriculture industry in Pune is sustainable”

It is observed that market growth is high. From the analysis it is concluded that the respondents support the hypothesis and it can be concluded that The floriculture industry in Pune is sustainable.

Although the potentially lucrative nature of the floriculture industry has long been beyond dispute, its vulnerability to circumstance is notorious. Based around the sale of a non-staple, perishable agricultural good, bad weather, delays in transportation or dissipating demand for luxury items in market destinations can quickly throw the industry into turmoil.
The result of testing both the hypothesis is presented in the table 7.2 given below

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Result of testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 “The floriculture sector in Pune has significant competitive advantage”</td>
<td>Supported</td>
</tr>
<tr>
<td>H2 “The floriculture industry in Pune is sustainable”</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Table 7.2 : Result of hypothesis testing
Thus it is concluded that respondents support both the hypothesis and both are proved to be true.

7.6 Factors for success:
It is observed that Quality control, Wages, Affordable credit, Image and Availability of trained labor were rated the most important factors for success in competition in the floriculture industry in Pune.

Government support and incentives, Purchasing, Industry Associations, Product research and development (R&D) and Advertising and sales promotion were rated the least important factors for success in competition in the floriculture industry in Pune.

7.7 Constraints faced by the Floriculture firms in Pune
High freight cost, currency fluctuations and energy costs and infrastructure are the main constraints faced by the floriculture firms in Pune at export development stage. It is observed that Increased costs of production, Real estate boom, Affordable credit, Shortage of Skilled Manpower and Training and Government support and incentives are the main constraints faced by the floriculture firms in Pune at production level. It is observed that Quality parameters and Environmental issues, Logistics are the main constraints faced by the floriculture firms in Pune at the marketing stage. All these factors are concerned with the cost of production and delivery.
7.8 **Internal elements and International Market factors**
Customer satisfaction and profitability were rated as the most positive elements. Whereas, retaining customers, employees and exportation were rated as the least positive elements in the firms surveyed. Service, quality, price and reliability are the essential factors for securing a good position in the international market.

7.9 **Industry competition and Macro environment:**
It can be observed that almost all factors positively affect the industry competition and macro environment as per the respondents in the survey. The most important factors in serial order are:
- International demand
- Product image in the international market
- Local demand
- Acquiring Capital
- Consumer awareness with regard to product quality standard

7.10 **Multi Theoretical Model**
Figure 7.1 shows the summary of analysis of the research. PESTLE analysis is used to analyze the macro environment and Porters five force analysis is used to analyze the micro environment. The combined strength of five forces is ‘Low’ implying that the floriculture sector in Pune is attractive and has significant competitive advantage. Moreover, the market growth is “High”. Hence it is concluded that the floriculture industry in Pune is sustainable. The fact that all respondents have indicated that they will continue the business and none have given any indication of closing down supports the research findings. It can be noted that 16% of the firms have indicated that they are going to expand and 13% have indicated that they are going to diversify. SWOT analysis is used to identify the strengths, weaknesses, opportunities and threats and also integrate the external analysis. It is observed that the floriculture firms in Pune are using the competitive strategy ‘Low cost leadership’. It is also observed that the floriculture firms are using indirect export and direct export as mode of international market entry. Based on the multi theoretical analysis it is suggested that the floriculture firms in Pune use competitive strategy of ‘Differentiation’ and use more control international market entry modes such as direct marketing to retailers, Licensing, contract farming, Joint ventures etc. These are shown in dotted lines in the figure 7.1.
Figure 7.1 Multi theoretical model of floriculture firms in Pune for analysis and selection of competitive strategy & international market entry mode

Figure 7.2 shows a multi theoretical model for analysis and selection of competitive strategy & international market entry mode. This model can be used by floriculture firms to help them in analyzing the industry and taking strategic decisions for future sustainable growth. This model can also be applied to other sectors. Thus, the model provides a simple tool for analysis which can be used by the perception of managers and available data to arrive at important strategic decisions without the need of complex statistical models. The model can act as a guideline for managers in the Floriculture industry to aid them in selecting appropriate strategies and select the right international market entry choices. Given the complexity of the generic strategy and the international market entry decision, what is demanded is not the abandonment of the strategy decision rule but rather an approach that facilitates systematic comparisons of the available alternatives.

Figure 7.2 Multi theoretical model for analysis and selection of competitive strategy & international market entry mode
7.11 Recommendation and suggestions for floriculture firms

Following section list down the implication and suggestions for floriculture firms in Pune to follow in order to achieve competitive advantage and economic sustainability.

**Strategy and Internationalization:**

On basis of the research and analysis it is concluded that the floriculture firms in Pune have a significant competitive advantage and are also sustainable. It is also observed that there is high market growth. After integrating all the multi theoretical analysis we can conclude that the floriculture industry in Pune is sustainable, has significant competitive advantage and there is high growth in the market. Slow industry growth will create a market share competition, which can increase rivalry greatly. In a fast growing industry, however, the firms can make market share gains and profits just by keeping up with the growth of the overall industry. It is observed that currently the floriculture firms in Pune are following the strategy of low cost leadership. Since the market is growing this strategy can be followed.

However the SWOT and PESTLE have shown growing threats from other African and Asian countries which also follow low cost strategy. These countries have better cost advantage due to low cost of labor, real estate and freight cost. Moreover, there are threats of changing market structures and intense competition which are facing the industry. The direct market route is gaining more importance. There are also threats from rising costs due to increase in input and labor costs. The floriculture firms in Pune are using export as the mode of entry for internationalization. This is international entry mode can be characterized as a low cost and low control entry mode. The respondents are using using both direct and indirect export modes. The floriculture firms in Pune are heavily dependent on the Auction route for exports and are mainly producing only roses. Thus to be sustainable in future and in the long term new strategies need to be followed by the floriculture firms. Hence it is suggested that along with low cost leadership the floriculture firms in Pune must adopt the strategy of **“Differentiation”**. In the floriculture sector product differentiation is determined mainly by the number of varieties which compete not only on price, but also on factors such as reliability, product variety, product quality and speed of innovation.
It is observed that floriculture firms in Pune are using export as the mode of entry for internationalization. This is international entry mode can be characterized as a low cost, low risk and low control entry mode. The respondents are using both direct and indirect export modes. The direct exporting is through agents and auctions. It is suggested that the floriculture firms in Pune must increase their degree of Internationalization and adopt higher control entry modes. Following the differentiation strategy can be done by moving up the value chain and internationalize more by getting into contract farming, technological licensing, joint ventures and forging direct export marketing relations with the buyers. The technological licensing and JV’s will help the firms in getting access to new variety of flowers and helping in increasing their product portfolio.

The firms should establish enduring long term relationships with the traders. By establishing enduring patterns of repeat trading, networks restrict access. Opportunities are thus foreclosed to newcomers, either intentionally or more subtly through such barriers as unwritten rules or informal codes of conduct. Indian firms need to increase the volume of sales in order to achieve economies of scale. Although Indian Rose production is comparable and competitive in terms of costs and returns, increasing export volume would help in achieving higher profitability. Developing vertical integration and joint ventures is thus another strategy that could be adopted by Indian growers. Growers in these centers may explore other high value product alternatives, such as propagating materials of specialty crops for export purposes. This could be achieved through licensing and contractual agreements with foreign collaborators. As direct marketing is growing as a major sales channel, production and export of varieties of flowers rather than concentration on Rose would position the firms advantageously.

Floriculture firms in Pune should adopt customized marketing strategies while targeting various markets. Selling through agents has now been replaced by direct marketing in many regions. Direct marketing gives better remuneration, eliminates middlemen and provides flexibility to position in niche markets, thereby avoiding the risk of excessive concentration on a single market. Firms will have to tailor their operations to sell directly to retail outlets and supermarkets in the importing countries by offering value-added production and supply-chain management to the retail outlets and supermarkets. This can be achieved through vertical integration downstream into freight forwarding, clearance and sales agency, which
which will allow producers to control the distribution and marketing process more effectively thereby increasing their profit margins.

Absence of seriousness on the part of the promoters to operate the floriculture units as a viable unit for long run survival and the main objective of business as profit making is lacking. To positively exploit the strengths and opportunities and to face the challenges of weakness and threats, the floriculture units have to periodically conduct a unit wise SWOT audit. This will help them to convert threats into opportunities and weakness into potential strengths.

**Quality and product Mix:** The firms should develop abilities to produce variety of flowers of high quality. Increasing quality consciousness among farmers and processors and enhancing skills in the areas of grading and standardization will be crucial for global trade in the WTO regime. In order to survive in the competitive international markets, synchronization between market trends and production systems is necessary. Since roses have the highest demand worldwide the firms should develop the ability to product new variety of roses with differentiated characteristics such as longer shelf life, resistance to disease and stress and available in a wide variety of colors. Cut flowers from India are mostly grown for exports and hence, should follow the latest trend in global demand, and produce the popularly preferred varieties of plants.

Only high-quality flowers are traded internationally. Production conditions are also becoming a new dimension of quality. Indian exporters must ensure that their produce is free from disease and that it is carefully treated once harvested. Exporters should also plan and monitor effective quality control measures right from production to post harvesting, storage, and transportation. Post harvest management, including cold treatment, proper packaging and application of preservatives, may need to be strengthened. Grading, according to international standards, is important to make the consignment acceptable. However, diversification of product mix is also essential considering the changing pattern of demand. New varieties fetch higher prices, which could be up to seven times higher than those of regular varieties.

**Certifications:** Gaining international certifications will help the floriculture firms in Pune to get some differentiation. Growers should all adopt a standard quality certification aimed at improving phytosanitary conditions. The firms should try to get certification such MPS-GAP.
Being member of UPOV will give easier access to new variety of flowers. These certification will also give a wide market access since these certifications are slowly becoming important factor in the end user buying process. Following the international code of conduct for floriculture will also help these firms in achieving environmental sustainability. This would also be the most effective way to address climate change by adopting sustainable development practices, besides using renewable energy, forest and water conservation, Reforestation etc. Application of sanitary and phytosanitary (SPS) measures by the developed countries would be another aspect governing exports. The SPS agreement harmonizes the standards internationally so as to minimize or eliminate the risk of SPS becoming a barrier for trade. Harmony with these measures calls for quality regulation which would benefit exports in the long run. Issues like plant protection organization for surveillance, certification, and inspection, etc. for the export of flowers should also be properly addressed.

**Diversification:** In addition to fresh cut flowers floriculture exporters should emphasize developing other diversified products and marketing them through dedicated outlets. This would expand the definition of floriculture from just fresh flowers to products and accessories manufactured from flowers, which would enable them to enhance their returns from floriculture trade.

**Economies of scale and freight:** The firms must look at expanding and increasing the size of the farms so that they can get the benefits from economies of scale. The freight cost disadvantage can partially be overcome by achieving economies of scale. To overcome the disadvantage of distance with Europe, Japan, and other distant countries the exporting firms may take advantage of facilities provided by the Dubai Flower Centre (DFC). Indian floricultural exporters can also leverage upon Dubai’s connectivity to global markets through more number of airlines operating from the Dubai International Airport. Scale economies also enable the floriculture units to integrate and move up in the value chain. Shifting to Integrated Supply Chain Model may help in attaining economies of scale in the industry. Large cut flower growers may identify ways to help integrate small and medium scale growers with large-scale producer supply chains, and thereby help integrate technology and stricter environmental standards into production practices. For example, small-scale growers could contribute in providing fillers and additional varieties to large-scale producers.
Re-plantation: Periodic re-plantation is necessary in order to maintain the acceptable freshness in variety and quality. The existing varieties often become obsolete with the constantly changing market trends and consumer demands.

Technology: The firms should increase their adoption of new technologies. This will help in reducing the power of suppliers.

Development of Human Resource: Conduct regular training and skills upgradation programs for the employees. Shaping up the growth will require highly skilled manpower at the middle and lower levels necessitating training and development.

Research & Development: It is observed that there is a serious lack of R&D activities, low level of innovation in this sector. It is essential that the sector focusses its attention on R&D and innovation. Tissue culture and bio-technology hold a lot of promise and should be exploited to ensure better high yielding floral varieties with in-built resistance to plant diseases. R &D can also help develop indigenous inputs and raw materials thereby reducing the cost of procuring these by imports and helping them in being more price competitive and increase their profit margins. The shelf life of flowers needs considerable improvement. On-shelf management practices must be standardized and research should focus on lowering input costs and on improving low cost indigenous systems.

Contract farming: Contract farming can be a step to overcome the diseconomies of small scale production and also to ensure quality as well as to provide the much needed technical know-how in floriculture.

Domestic market: The demand for flowers is growing in the domestic market. The domestic market can also be used for testing new varieties and also be used as alternate market for selling flowers rejected for exports. The firms must not ignore the domestic market. The Government is also allowing EOU’s to sell 50% of their produce in the domestic market without losing the other benefits offered to them. This will also help them in reducing the current over reliance on exporting and shield them from the threats of currency fluctuations, import tariffs and rising air freight costs.
Information Technology: It is imperative for the firms to make use of Information Technology in promoting themselves and in gaining access to new buyers and markets. Use of information technology will help to streamline transaction processes and lower transaction costs. A second potential is related to the quality and specificity of the produced flower products. Information technology can remove the quality uncertainty of products and can provide rich information services to buyers. Thus use of information technology provides opportunities for the producers to expand the reach and richness of their product and service offerings, thus creating economic value. One approach could be to set up online shop for selling fresh flowers. A development that is to surely change the floriculture industry is the emergence of the online sales channel - a marketing channel that is steadily growing in the recent years. Traditionally, florist shops have been delivering cut flowers to the consumers’ doorsteps; however, in the last decade, new flower delivery operators have emerged, some of them having no background in the floriculture industry at all. Some of these are new online flower shops originating from IT-based companies, some from online gift shops, individual florists. The important characteristic for the online flower delivery business is that it is largely occasion driven.

Packaging: In an industry where non-price factors are the basis for competition, distinguishing quality products and the use of innovative packaging are other ways of gaining competitive advantage. The floriculture industry needs to examine current packaging practices and learn from the success of other countries. Packaging, apart from catering to the preservation requirements, must also be perceived as being environmentally friendly, while catering to the European markets. It is also necessary to keep in mind when standardizing box sizes and design. Thornless varieties and thorny varieties should not be packed together.

Consortium: The firms should follow a consortium approach. A possible approach is the formation of a Growers’ Association that allows flower exporters to group together and adopt a pooling strategy, where pooling entails the combination of various growers’ (members’
produce into a single export consignment. The advantage of these associations is that they are strong in terms of the counteracting power of the growers collectively. However this power by association must be traded off against self-selection and the pursuit of individual strategies. Through consortium and co-operative approach various actives such as setting up integrated cold chain, integrated pest management, contract farming, branding, help in certification, R&D etc could be done more effectively. Assistance could be sought from various Government schemes available. Co-operative florist organizations may be established at regional level, to pursue business interests of member organizations and to act as supply chain.

7.11 Recommendations and suggestions for Government

There are a number of constrains facing the floriculture sector in Pune and India in spite of a number of incentives and steps taken by the Government. The developmental initiatives of the government have to keep in mind the low knowledge base, small land holdings, unorganized marketing and poor infrastructural support. Below are some of the recommendations for the Government which help in the growth and sustainability of the floriculture sector.

**Infrastructure:** Poor infrastructure is one of the major constraints faced by the floriculture firms in Pune. The Government must ensure better roads and uninterrupted power supply to these firms. Post-harvest management systems and infrastructure need to be developed. The marketing sector suffers from long and fragmented supply chains resulting in high waste and low efficiency. Within this sector, horticulture and floriculture is especially sensitive to handling and transport infrastructure and evidence shows that these costs are particularly high in India. Creation of a well dispersed infrastructure and efficient storage and transport systems will be a crucial factor in harvesting the full potential of the floriculture sector.

It is also necessary to improve the other infrastructure in the supply chain such as cold storages, refrigerated transport and cold storage facility at airports. The first and foremost requirement is to develop a state-of-the-art Integrated Cold Chain, for flowers right from the point-of-origin (growers) to the point-of-consumption (customers). This also requires application of appropriate technology that can enhance the performance of the cold chain process, adequately supported by skilled and trained cold chain managers. The current cold
chain management in India needs to undergo a transformation, both in structure and approach. The infrastructure at airports, including perishable cargo handling facilities also needs to be improved besides creating additional cargo space specific to floriculture. There is a need for operating an efficient commercial inland transportation system. A system of reefer transportation would have to be organized on commercial lines to transport flowers from production sites to auction centers. While road transportation through reefer vans may be most economical, railways could provide reefer wagon facilities on the super fast trains to carry flowers. Large-scale investment is necessary to overcome inefficiencies – in handling, grading, transport and storage. There is also an need to set up quarantine facility.

**Auction House:** The Government should set up auction houses for sale of flowers. These have been announced but not yet implemented and completed. The first and foremost thing is to start the Auction halls as soon as possible and regulate the cut flower market with strict norms on pricing. Ideally the auction should be managed by growers and buyers, with a commercial objective, and the Government could play a facilitating role.

**Freight and Tariff Barriers:** More subsidy should be provided to reduce the high freight costs and find ways to bring the freight costs down. The Government must negotiate with international bodies and countries to eliminate import tariff barriers for Indian firms. Import duty on inputs, especially on greenhouse equipments currently at around 60% should be brought down to 15% to facilitate economic viability of green houses. Reduction in import duty on various items connected with floriculture. Fresh cut flowers exporters be provided a 50% airfreight transport assistance as this would provide a strong boost for increasing fresh cut flower exports from the country and provide a level playing field for Indian exports.

**Finance and subsidises:**
Use of IT for better transparency and to reduce times taken by bureaucratic procedures. Schemes to increase the flow of credit and insurance to the sector must be launched. Help must be provided in proving better insurance options to this sector. The Government must take proactive steps to reduce cost of finance and offer easy affordable credit and loan facility. There must be an increase in the amount of subsidiary so that firms can expand more
and achieve economies of scale. Periodic re-plantation with appropriate re-plantation support from Government is necessary in order to meet the changing demand in global market for variety and quality. Help small companies by providing marketing and logistics help. Availability and subsidy for fertilizers must be provided. National Horticulture Board in consultation with APEDA could develop grant/subsidy program to fund technology upgradation. Banks should extend long term loans (over 3 years) to growers/breeders to develop new varieties as has been the practice in EUECGC/Insurance companies to develop appropriate risk mitigation policies for exporters/ growers. To combat the problem of real estate boom the Government should lease land for longer periods at attractive rates to this sector. At the state government level, it has suggested that the projects be exempted from power cuts, tariff variations, purchase and sales tax.

**Policy:** The policy environment must be facilitating so that the emerging agribusiness sector invests in the supply chain. This is a sector that has been the object of active government regulation that has historically discouraged private companies from investing in the supply chain. Policies must seek to encourage and foster institutional innovations that would allow small growers to participate in the supply chain. APEDA in association with respective state agencies must orient floriculture firms to the need to conform to Union for Protection of New Varieties of Plants (UPOV) and Breeders Rights. Quarantine law should be strictly employed during the import of planting materials from India and other countries.

**Research and Development:** Despite the achievements of the past, the problems with the Indian agricultural research are well known. Two endemic problems are over-bureaucratization and the lack of prioritization in allocating research resources. There is immense scope for applied research in addressing the pest and disease problems. Focus should be on R&D to develop new variety of flowers and develop indigenous materials required for setting up high tech floriculture units. The approach paper also calls for a prioritized strategy for agricultural research that could enhance the long-term growth trajectory of the sector. Research should be undertaken to develop new organic fertilizers reduce post harvest losses. The Government must set up training institutes for better knowledge dissemination and training for activities in this sector. It is crucial that the sector's productivity is improved through increased investment in research and development, human capital, extension services, irrigation and rural infrastructure. Setting up of Farm Schools in
the fields of outstanding farmers to promote farmer to farmer learning and to strengthen extension services is necessary. Thus there is a need for a revamped and restructured agricultural research system that can support increases in productivities, conservation of resources, deal with climate. Hence it is necessary to set up a National floriculture center.

**Branding:** Help in promoting and developing ‘Brand India’ for this sector. Promote and help firms in acquiring international certification such as MPS-GAP, FLP etc. Develop better relation and sign co-operation agreements with leading countries such as Holland and USA. Develop a standard code of conduct for the exporting companies. The Government should promote the adoption of IPM is still low, but with increased availability of biological pesticides, appreciation of environment-friendly technologies is increasing.

**Use of Technology:** New technologies which can help enhance productivity per unit of land and water are needed. Biotechnology, information and communication technology (ICT), renewable energy technology, space applications and nano-technology to provide opportunities for launching sustainable productivity increases.

**Inputs and services-Soil Health:** Good quality seeds, disease free planting material, including in-vitro cultured propagules and Soil health enhancement hold the key to raising small farm productivity.

**Single National Market:** To develop a Single National Market by relaxing internal restrictions and controls. Work towards providing direct access to customers by removing multiple agencies and middle men which are affecting the margins of the producers. Integrated marketing chains with fewer intermediaries could offer farmers a higher margins and profit. Market reforms and investments which can reduce the transactions costs of small firms in the supply chain will be beneficial not only for equity but also for growth of small farmers in these activities.

**PPP model:** The delivery of services at the farmer level should be in the hands of the private sector. A PPP model should be followed where the public sector invests in knowledge capital and the private sector delivers the services based on this knowledge. Public investments would be needed for several kinds of marketing infrastructure and also basic supporting infrastructure such as roads and electricity.
7.12 Suggestions for education and research institutions

In present and future commercial floriculture markets, production opportunities exist if the goal to reliably produce high quality product in consistent quantities can be attained. To reliably produce high quality cut flowers in consistent quantities requires optimum production management. Production management strategies for implementation and training of personnel will be different for different types of production operations. Therefore, a key factor to realizing production opportunities is education. Following are a few suggestions for education and research institutions.

• Select Indian agriculture universities could establish partnership with overseas research institutes like PTC+, Holland for developing new varieties of flowers and foliages.

• Technology for the construction of green houses/glass/poly/shade houses are to be dovetailed to Indian climatic conditions. “India needs to develop indigenous technology as the cultivation of flowers in greenhouses here is dependent on foreign technology. Low cost green houses have to be developed using indigenous R&D.

• Training center’s for diploma course on the pattern of Industrial Training Institute (ITI) for training the personnel in floriculture should be setup.

• The education institutes should introduce specialized courses in science and business related to floriculture.

• It is observed that the research work done is theoretical and does not have commercial and practical angle to it. Thrust areas for research and development should be identified and medium term research and development program should be prepared and implemented to support the national plan for improvement and extension of high tech floriculture technology at different levels. Treatment and utilization of effluents from floriculture industry should be included in the R&D. program.

• Retailers complain about the lack of skilled manpower for the preservation of cut flower and decoration of the bouquet. Technical knowledge related to post harvest handling, packaging, quality maintenance and preservation of flower has to be imparted to flower
growers through the medium of training, conferences and seminars by qualified government personnel. The firms, on the other hand, should take a more proactive role in education and development and promote industry-specific education and research institutions. Similarly, industry associations should participate in developing specialized skills, technology and infrastructure, and constitute a bridge between industry and educational institutions.

7.12 Limitations and scope for further research

There are several limitations that could have influenced the results of the research. This research can be improved in the future by focusing on some of its limitations. This research was limited to only firms which are exporting. A similar study can be conducted on firms which are not exporting to find issues and constraints preventing them from internationalizing. The focus on this research was only economic sustainability. Future research could focus on ecological sustainability and scope for poverty reduction.

The following limitation concerns the operationalization of the theory concepts and data analysis. For example, the validity of Porter’s five forces analysis is as good as: (1) the identification of factors that influence each of the five forces and (2) the subjective evaluation of each factor by the interviewee. This research attempted to overcome these two problems by: (1) using a validated list of factors from the study of Pecotich et al. (1999) and (2) introducing a five point scale to assess each factor. The results of the analysis of Porter’s five forces might be different, if one chooses other factors and another method to assess them. This could have had an influence on the results, because the interviewees might have focused on the given factors and did not mention other potential factors.

It should be emphasized that this is a first step in measure construction and validation. The development of the instrument has been strictly based on Porter's (1980) original formulation rather than on any refinements that have taken place. Despite some controversy concerning Porter's conception, (and it should be noted that the major focus of the criticisms and refinements has been on strategy rather than industry structure), it is the researchers view that the emphasis should be on the original. This is consistent with philosophy of science prescriptions which suggest that scientific progress should be iterative from conceptualization to testing to reformulation and so on. However, it is important to recognize that although this instrument was deliberately created to measure Porter's conception of industry structure this
did not preclude it from failing to do so. The fact that it seems to work provides evidence that executive perceptions may indeed match Porter's view of industry structure. Nonetheless, it is recognized that the validity of scientific conclusions emanates from replication and that the final decision as to the extent of appropriateness of this measure remains in the hands of the research community who will provide that information in future studies.

The focus of the research has been on structure & conduct and not on performance and profitability since firms tend not to reveal financial data.

This research has applied the SWOT and porters generic strategies at industry level. The results and recommendations are for the whole industry. Different firms will have different strengths and weakness since they differ on various parameters. To arrive at proper strategies, individual companies should apply these models at their own firms levels.

One of the limitations of this study is the chosen set of theory concepts and tools. This research applied Porter’s five forces model, comparative industry structure analysis and key success factors for answering the research problem, however other tools could have been used as well, i.e. industry life cycle model. The goal of this research was to suggest the appropriate competitive strategies for a company, which normally should be based on the analysis of the external environment (business environment) and internal environment (internal situation) of a company. However, this study focuses on the external environment and analysis of the industry, and therefore the results of the conducted analysis can differ from the possible results of a full analysis (external and internal).

The above comments lead directly to the implications for further research. There is undoubtfully a need for more extensive further research on floriculture sector. Similar studies can be conducted on other clusters and cities in India. This sector could be analyzed by using other theoretical tools and test their accessibility to this sector. Similar studies can be conducted on other horticulture crops in India.

This scope of this research was restricted only to cut flowers. Further research can study the sector for various other parts of floriculture such as bulbs, tubers and tuberous roots, other live plants, dried flowers, foliage etc.

Chapter 7: Summary and Conclusion

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Researchers may find it interesting to extend the sample of respondents to a much broader one and include floriculture firms from other parts of the country to have a perspective over the different approaches in strategy within the floriculture industry in India.

This research employs a multi theoretical approach in which only factors influencing the managerial decision to choose a particular generic strategy at the time of entry are investigated. Hence, the study limits our understanding of the dynamic process of why firms change from one mode of entry to another. To advance our knowledge, future research may use a longitudinal approach to study over time changes of the factors affecting the tendency of investing firms to adopt a specific mode of entry and generic strategy.

In addition, other interesting future research topics would be an analysis of the later changes in the ownership structures and an analysis of the relationships between ownership structures chosen and performance of the subsidiaries.

Moreover, researchers are encouraged to develop a series of case studies in this sector and apply case study methodology for studying the sector. The results of this research suggest several avenues for future research on internationalization, competitiveness, macro & micro analysis, and choice of strategy and international entry mode.

7.13 Contribution of this research.

The research is different in the following respects.

First, rather than replicate previous studies of large multinational manufacturing firms, the researcher has selected an industry that is extensively populated by small - and medium-sized firms: the Floriculture industry.

Second, researcher has attempted to add to the previous empirical research studies that have applied Porters five force and generic strategy to the Floriculture sector.
Third, researcher has tried to explore a high-technology area of horticulture sector that has experienced rapid growth in the past two decades but has received little attention from researchers to date: the floriculture industry and that too from developing countries.

Fourth, the study includes the analysis of both micro and macro environment unlike previous investigations which typically included only either one of the environment.

Fifth, the study uses managerial perceptions for measuring the explanatory factors.

It is observed that the study is not traditional in its content but it is modern in its approach. The past performance of floriculture industries does not necessarily indicate the future prospects. However researcher have made special efforts to pilot the transformation from tradition to modernity eg. instead of auction the direct market has been suggested. Also the speciality of the study is that it includes both macro and micro analysis of the external environment. It is remarkable that it uses multi theoretical model to prove the hypothesis. Additionally, this study confirms the applicability of the Porter’s five force model to the floriculture industry in developing countries.

A novel feature of this research was the use of managerial perceptions for measuring the explanatory factors. An important advantage of this technique is that it provides direct measures (as compared to proxy variables used by most researchers) of factors. The research showed that this method of operationalization was particularly useful for quantifying hitherto unquantifiable constructs. An important research direction is the development of better survey measures for those constructs that had relatively low inter-item consistency.

The research implies that the selection of strategy and international market entry decision process cannot be reduced to a formula, a set of rules, or even a complex computer model, however the multi-theoretical models presented in previous sections can act as guideline for managers in the Floriculture industry to aid them to select appropriate strategy and select the right international market entry entry choices. Given the complexity of the generic strategy and the international market entry mode decision, what is demanded is not the abandonment of the strategy decision rule but rather an approach that facilitates systematic comparisons of the available alternatives.