Introduction:
The previous chapter of the thesis presented in detail the data analysis, results of hypothesis testing and other results of the survey that was conducted on the floriculture firms in Pune. This chapter presents the analysis and discussion based on the results and literature review chapters. Supply chain of flower market is presented. This chapter presents the micro, macro and SWOT analysis of the floriculture industry. The macro analysis is presented using PESTLE analysis and micro analysis is presented using Porter’s Five force model. All the three analysis are integrated to propose alternate long term strategies for ensuring economic sustainability, growth and competitive advantages. Based on the results a model showing relation between competitive advantage and market growth as factors of sustainability is presented in the last sections of the chapter.

6.0 Cut flower value chain:
The world market for cut flowers has grown consistently in the last decade but it has recently experienced slower growth in demand at the same time as an expansion of production, especially in developing countries, has exerted downward pressure on prices. Furthermore, the global cut flower value chain is undergoing structural shifts in its EU distribution channels as supermarkets increasingly source directly from suppliers in developing countries, thereby cutting out wholesalers and the Dutch auction system (CBI 2007; Thoen et al. 2000). Hence the international flower market is structured by two different value chain strands (see Figure 6.0).
The consumption channel for floriculture business is gradually shifting from specialty shops and florist shops to the super market chains, mainly in Europe. Supermarket chains are mass consumers and seek importing of large quantities of flowers, with latest varieties and a well defined supply chain network.

On the one hand, the increase of direct sourcing by large retailers has a significant impact on governance. While retaining their driving role due to their considerable buying power, supermarkets externalize non-core functions such as the monitoring of quality and coordinating supply logistics up the chain towards exporters. The auctions, on the other hand, basically function as a distribution centre by absorbing large quantities of flowers that are re-packed and sold to buyers from all over the world. The system is based on three key components: the concentration of supply, a public price discovery system, and a cooperative organization structure. There are seven cooperative flower auctions in the Netherlands, with total sales amounting to € 2.5 billion in 2006 (CBI 2007).

**Figure 6.0**: Cut flower value chain. Source Lone Riisgaard, 2009
Historically important, the Dutch flower auctions remain the most significant route and mechanism through which cut flowers from Asia and Africa are distributed to European wholesalers and retailers (CBI 2007), even though direct sourcing by large retailers has increased. While the direct strand for flowers is controlled by supermarket buyers, particularly UK retailers, and is strongly buyer-driven, the auction system is less strictly coordinated and less driven.

The auction strand is characterized by relatively loose trading relationships because of its more market-based type of coordination, particularly at the auction point, which makes explicit governance along the whole chain difficult to achieve. It is in the direct strand that labour has been able to exploit the power of retailers in specifying entry barriers, while campaigners in consumer markets have exposed and criticized the appalling working conditions in flower plantations in developing countries.

In the last decade, a range of private social and environmental standards superseded ineffective unilateral corporate codes of conduct and developed into broader business and multi-stakeholder initiatives. The majority of standards were developed in European consumer markets, although recent years have also seen the initiation of a variety of standard initiatives in producer countries. In all, at least sixteen different social and or environmental standards (international and national) exist for cut flower exports (CBI 2007; Dolan and Opondo 2005; Riisgaard 2009). In the context of very weak workplace organization, it is the direct buyer-driven strand, rather than the spot market-based auction system, through which campaigners in the consumer markets as well as national and international trade union bodies have been able to create pressures for standards at the level of production. While a range of different PSSs are required to enter direct retailer chains, social and environmental standards are not currently a requirement to access the Dutch auctions. However, an exception might be emerging, as flowers certified to the social and environmental Fair Flowers Fair Plants (FFP) label can now be identified at the auction clock on an optional basis (though it is too early to assess the impact of FFP; see also Riisgaard forthcoming). This became possible because it was in the interest of the auctions and the wholesalers buying at the auctions to be able to offer socially labelled flowers to buyers (previously not possible in the auction strand).
6.1 PESTLE analysis.

The following section presents the PESTLE analysis which was used to analyze the macro environment. India is the largest democracy in the world and it is a unique country in many ways. It is important to be aware of the cultural diversity in India since it has a huge influence in the business environment. The following sections presents the Political, Economical, Socio-cultural, Technological, Legal and Environmental factors.

6.1.1 Political factors.

In country like India, political factors play a huge role. This factor could give many restrictions and freedom to the organization. Following areas in the current political environment were identified in the floral industry. Following are the factors categorized under different heads that are affecting the floriculture business in India.

• Stability of the Government:- In India it has been experienced in the past that whenever there is political instability the business activities are adversely effected. The floriculture business, as the history shows, was also effected in the recent past when the central Government was facing instability. The present trend shows that the coalition government have come to stay in the country, Considering which the business activities in general are likely to be effected adversely.

• Diplomatic relations:- The diplomatic relations of any Government with other states of world do have an impact on any business. The demand for floriculture sector was seriously affected and therefore the Indian exports had come down considerably when the U.S. had a war in Afghanistan though the Govt. of India has recognized the floriculture industry as a Sunrise industry the countries African nations and sub-Saharan countries of such diplomatic factors.

• Farm subsidies:- The policy relating to farm subsidies changes from to state to state within the Indian Union Axis is mainly because of fact that different parties are ruling in different states. The party in the opposition in centre if it is ruling in the state the policies are different. The floriculture sector as it is only in a few states of our country, so far, has not faced any problem.
• Political Influence:- It is a general feeling among all the businessmen including those dealing with floriculture that for starting any business in our country it is necessary that one has political influence so that all kinds of Permissions and licenses are acquired easily.

• Knowledge in government authorities regarding this sector is very low. So the support given has many weaknesses. Even though there are many grants allowed for floral industry development there is no set instructions on what next. For a small organization this grants might help, but they have to figure out how to sell their products and etc.

• Government of India has identified floriculture as a sunrise industry & accorded it 100% export oriented status. Owing to study increase in demand of flower floriculture has become one of the important commercial activity in Agriculture.

• Indian Floriculture industry has been Shifting from traditional flowers to cut flowers for export business. Commercial Floriculture is becoming important floriculture the export angle. The liberalization of industrial & trade policies paved the way for development of export oriented production of cut flowers.

• The new seed policy had already made it feasible to import planting material of international varieties it has been found that commercial floriculture has higher potential per unit area than most of field crops & is therefore lucrative business.

• In many areas the problem of migrant labour has become the major political issue.

• The Government shows an extremely positive attitude towards cut flower production because it brings in foreign exchange.

• INCENTIVES BY GOVERNMENT:

Floriculture is fast emerging as an industry with high potential for the domestic as well as export market. Govt. of India, identified floriculture as “Thrust area”. A number of infrastructure projects especially cold chain infrastructure were commissioned. The Central Govt. as well as various State Govts. are providing a package of incentives and concessions to the floriculture industry. The centrally sponsored scheme on commercial floriculture was launched for the first time during the 8th five Year Plan to improve supply of quality planting material and technology transfer with a outlay of Rs.14.29 crores which was subsequently
enhanced to Rs.19.90 crores during 9th Five Year Plan. Apart from the above following are
the changes/amendments on account of the liberalization / globalization Policy.

1. The quarantine procedure have been simplified and made easy for
the import of seeds and planting material.
2. Reduction in import duty on various items connected with floriculture
3. Import permits for flower, seeds and tissue culture materials of plant origin have been
waived.
4. Floriculture units can avail the benefits of duty free imports if they export 50% of their
production.

6.1.2 Economical factors

- Tax benefits are offered to new export oriented floriculture companies in the form of income
tax holiday and exemption from certain import duties.

- India share in International Market for Flowers is still negligible and less than 1 %.

- High import tariff: The Indian floriculture sector has been facing the high import tariffs
levied by some of the developed countries like U.S. and Europe as against the tariffs on
imports from the other countries.

- Availability of dedicated perishable carriers :- The exports of floriculture obviously require
the solely dedicated perishable carriers, so as to carry the load to the Ports from the forms;
but the numbers of such carriages available is reported to be inadequate in our country.

- High freight cost:- The freight charges of the private sector in respect of transportation of
the floral produce in proper shape & quality obviously requires private transportation at
least upto the place where it is loaded in a public transport system. The freight cost charged
is considerably higher when compared with some of the other countries producing identical
products. This has seriously affected the exports of floriculture.

- Small Size of flower farms:- The average size of flower farms in India is less than 3.5 acres
of land this results in the large scale benefits not being available and scale economies being
lost, by and large this has resulted in bringing down the volume of exports. Small Unit of
flowers forms in India is also considered a constraint due to absence of economics of scale.
The average size of Indian farms is approximate 4 ha as compared to the size of 40 ha in
some African countries. Increase in size also enables units integrate easily and move up in the value chain.

- Inadequate Support infrastructure:- The production and exports of floriculture requires a no. of types of support infrastructure such as availability of storage facilities, insurance, Pre shipment & Post shipment facilities etc. The inadequate nature of such facilities etc. The inadequate nature of such facilities has posed serious problem for the traders.

- Inadequate Cold chain management:- The perishable commodity like flowers obviously requires adequate cold chain facilities and in absence of such facilities it is practically difficult to run the business of floral exports.

- Other Economics factors:- Apart from the above there are some other factors like inflation, high interest rates etc. These factors have created a lot of problem for Indian floral traders.

  - higher interest rates may deter investment because it costs more to borrow
  
  - inflation may provoke higher wage demands from employees and raise costs
  
  - higher national income growth may boost demand for a firm's products

  - Exchange rate fluctuation has is one of the biggest difficulties in the floral export market. Due to this the profitability of many companies are unstable. So many major exporters are now looking for developing a local customer base.

- As cost of living is going high the products will be in lower priority list in the customers mind. Their investment for floral decorations is going down due to the financial problems. Currently agricultural industry in India is in Tax-free nature. This is an opportunity for any organization as this may be directly affecting the cost structure of their products.

- Currently, domestic flower trade has attracted the largest demand from an estimated 300 million middle-class flower-loving people with consumption in the cities and major towns at 40 per cent per annum. Flower retail shops have mushroomed all over the place from major metros to market shops and flower boutiques. Further the supermarket/hypermarket retail chains have fueled the growth in the consumption.
3.1.3 Socio-Cultural Factors:

This factor directly affects the floral industry because this is the factor which decides the customer attitudes towards purchasing of goods and services.

• Currently floral decoration is the growing social trend. Many are ready to invest on exterior decorations and interior decorations using fresh green plants. This is an opportunity to the floral organization.

• Many are now prefer to start their own business. One of the main areas is floral industry. This increases competition, yet this is a great way to grow the industry. Rather than using ornaments and other artificial products, people are more attracted to use live plants in their houses. This will help the organization to get more demand.

• Currently it is the small scale organizations that serve higher percentage of customers. This shows that for small grower this is an industry that could help them to gain more profit.

• Sales fluctuate according to different seasons. For a floral products exporter summer in EU is a less sales period. Valentine’s, Mothers day, Easter, Christmas needs flower in large quantity (Red Roses) in addition to festivals and worships. Such like that in the special days and seasons such as Christmas, New year, Mothers Day etc the demand will be higher for the floral products.

• Now there are attitude in the people to go in to floral and especially agricultural sector. This means more attention from authorities.

• Problem of skilled labor force is one big problem that the companies are facing. Health risk is there due to higher use of Agro-chemicals. So it is important to use necessary steps to reduce that risk and making it safer for the employees involved.

• The demand for flower decorations is increasing rapidly due to lavish arrangement during social, political, entertainment & Sport event.

• In addition to the above there are some social & marketing related factors effecting the floriculture sector. The Social factors like work ethics, culture, aging of laborers in form sectors and absence of proper social security are the social factors while low diversification of products and product differentiation, low level of vertical integration and absence of...
global market information system are the factors regarding marketing.

- The relationship between the customer sales and the seller is of great importance in the flower trade. Sales in the wholesale trade take place by telephone, fax, internet or by personal visits. The gross profit margins are in the range of 10 to 15% for commissioned agents and approximately 15% for other wholesalers. Deviations in these estimates occur due to transport costs & customer wishes.

- The effects of Floriculture on women workers in the ruler communities in respect of health and their social economic, political & Ecological situations. Women are active participants of the floricultural production. They are involved in the activities for pre-planting, crop-maintenance to harvesting.

3.1.4 Technological factors:-

As the competition is growing and customer expectations in quality is growing the need for much sophisticated technological support is going high. Productions, distribution & exports of floriculture sectors depend to a great extent on the technological factors are listed below:-

- Inadequate availability of quality local basic inputs such as – seeds & plants
- Lack of quality irrigation much necessary for horticulture
- Lack of skilled manpower particularly for plucking the flower
- Negligence to research relating to technical factors
- The floriculture industry in the world is applying advanced technology. Floriculture products are cultivated in poly houses or shade houses according to the shade requirement of the plant/flower type under necessary micro climatic conditions. In the cut flower production, high quality new hybrid varieties imported from overseas countries are used as mother plants. Both native and exotic mother plants are used for the production of foliage plants and decorative leaves.
- In India the introduction of new technological developments to the industry is high. This had given them a competitive advantage by reducing labor cost and finally reducing the price of plant.
• Transportation is another technology lacking area. Due to the perishable nature of the products it’s important to have enough air transportation facilities and good logistics facilities.

• Due to the development of information technology, companies are now moving on to online sales and marketing. This reduces cost and may help to remove the middle man from the business

• Flower growing is a competitive, Hi-Tech world with high investment in machinery and equipment scientific Research plays a big part in the development of new flower varieties, micro propagation of plant tissue culture.

• It is not far when India will come up as major grower/ exporter by virtue of well planned policies formulated by GOI backed by Foreign technology for green house production.

• The most effective way to address climate change is to adopt sustainable development pathway, besides using renewable energy, forest and water conservation, Reforestation etc.

• Development of new cultivars of floriculture crops tolerant to high temperature, resistance to pest and diseases, short duration and Producing good yield under stress conditions.

• Liberalization & plants, fruits, seeds (regulation for Import into India) order 1989 , also known as the new seed policy have already made it feasible to import international varieties of planting materials

• old entrepreneurs in this Industry have indigenizes their technology requirement like playhouse and parent plant materials and developed local cultivation & PHT. However new entrepreneur wants to start the technology is required to be imported, the project cost becomes high with imported green houses technologies.

• Hence Indigenous technology for the construction of green house /glass /polished houses are required to be development to suit the Indian climate conditions. Raw materials & technical know how required to build green houses available in India now.

• Commercial Floriculture has emerged as Hi-Tech activity taking place under controlled climactic conditions inside green houses.
• Floriculture is one of the most successful components of British Colombians diversified horticultural industry like most other argil commodities, floriculture is not only a business, but a lifestyle that involves a commitment.

• Floriculture industry is Highly technical & scientific. Many areas of technical expertise are involved including green house design/ construction. Computers Nutrients, pest control and machinery.

• Economics success of floriculture business start with site /land selection. Location influences such factors as available light, labour, pests. A good choice that lends itself to easy planning and layout makes getting started a lot easier.

• It is not far when India will come up as a major grower /exporter by virtue of planed policies formulated by government of India backed by foreign technology for green house production.

• The most effective way to address climate change is to adopt sustainable development pathway besides using renewable energy, forest & water conservation Reforestation etc.Development of new cultivars of floriculture crops tolerant to high temp resistance to pest & Diseases short duration and producing good yield under tress condition.

6.1.5 Legal Factors

• The Laws of other countries:- The international trade of any country and of any commodity requires a clear understanding of various international laws after the establishment of W.T.O there are a lot of legal charges that have come about in a no. of countries. The changes in international rules & regulation with regard to flowers stipulate that certain standards are maintained with respect to the classifications of flowers at the port and off the port. Thus the legal aspects have got to be considered which are effecting the floral trade. The relationship between the customer sales and the seller is of great importance in the flower trade. Sales in the wholesale trade take place by telephone, fax, internet or by personal visits. The gross profit margins are in the range of 10 to 15% for commissioned agents and approximately 15% for other wholesalers. Deviations in these estimates occur due to transport costs & customer wishes. The effects of Floriculture on women workers in the ruler communities in respect of health and their social economic, political & Ecological situations. Women are
active participants of the floricultural production. They are involve the activities for pre-planting, crop-maintance to harvesting

- The laws relating to employees including the welfare benefits, minimum wages, incentives and bonus etc. are different in different countries and even the W.T.O. has tried to regulate if these differences are still persisting thus legal factors are very important.

- At the moment there are no specific legal actions regarding the floral industry. So the industry is currently behaving using self-discipline.

- There are many regulations that a company may have to conform if they are to do exporting such as MPS-GAP, UPOV, FLP, FFP etc

- Non-tariff Barriers: Phytosanitory regulations on country of origin; Product and packaging requirements set by the Vereniging van Bloemenveilingen (VBN), the Dutch Flower Auctions Association, the umbrella organization of the Dutch auctions; Environmental requirements with regard to packaging and waste.

3.1.6 Environmental Factors:

- There are no environmental regulations for the Indian floriculture industry. So the industry behaving with self regulations. Unlike other industries the pressure from the environmental authority and pressure groups are less to this industry. Being high tech and in order to maintain quality there is extensive use of pesticides. There is considerable polluting in this industry and it may affect the health of the workers in the long run. A lot of polyethene is used in packing. Flowers are often offered as gifts for special occasions. The consumers want to be seen as giving an item that is of high quality and environmentally friendly. Adequate care must be taken in usage of chemicals and pesticides.

- Fair Flowers Fair Plants (FFP) is the first international consumer label for sustainable cultivation of flowers and plants. The objective of FFP is to improve social issues such as labour conditions in the flower production, as well as improvement of the environmental performance. Traceability is a key requirement and every link in the chain must participate in FFP in order to guarantee the FFP requirements, from producer to trader to retailer.

Table 6.1 below gives the summary of the PESTLE analysis along with strengths rated on scale of 1 to 5. Where 1 means negative influence and 5 means positive influence on the
floriculture sector.

<table>
<thead>
<tr>
<th>PESTLE FACTOR</th>
<th>SUB FACTOR</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political</td>
<td>Government support for agriculture</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Government’s relationship with international</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Knowledge of Authorities</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Tendencies for future support</td>
<td>4</td>
</tr>
<tr>
<td>Economical</td>
<td>Exchange rate stability</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Improvement from recession</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Initial investment</td>
<td>2</td>
</tr>
<tr>
<td>Socio Cultural</td>
<td>Safety</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Attitudes towards the industry</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Skilled labour force</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Customer tendency</td>
<td>4</td>
</tr>
<tr>
<td>Technological</td>
<td>Research support</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Use of new technology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Potential technologies available</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Sources to identify new technologies</td>
<td>4</td>
</tr>
<tr>
<td>Legal</td>
<td>Direct regulations</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Indirect Regulation</td>
<td>3</td>
</tr>
<tr>
<td>Environmental</td>
<td>Pollution prone</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Pressure from environmental groups</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 6.1 Pestle analysis

6.2 Micro analysis: Porters Five force

This section presents the Micro analysis of the floriculture sector in Pune using Porters Five force model. Based on the results presented in the previous chapter the following table 6.2 shows the strengths of each force and results of hypothesis testing.

<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 6.2: Result of Porter’s five force analysis.

Mean score range between 3.1 to 5.0 implies that the forces strength is ‘High’ and a Mean score range between 1.0 to 3.0 implies that the forces strength is ‘Low’ 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.

6.2.1 The Bargaining power of suppliers:

The grand average scores of the seven forces used in survey for the Bargaining power of suppliers force is 2.6. According to the forces’ strength classification the strength of this force is ‘Low’. This indicates that the floriculture firms in Pune have a high competitive advantage in regards to this force. Hence it is proved that the Bargaining power of suppliers is not high in the floriculture sector in Pune. In countries with abundant labour, most inputs are standard and imported. However since most of the input material is imported it is expensive. The flower growers in developing countries depend on foreign knowledge. The Israeli and Dutch are leading in the flower business. Mainly companies from these countries supply equipment, knowledge and marketing opportunities. Protected cultivation is not a common practice in India, the greenhouse designs and structures for the modern floriculture units are mostly imported from countries like Holland, Israel, France, and the USA. The seed and planting material industry in India is relatively not well established. Mostly, the imported varieties are preferred for production of cut flowers and foliage meant for exports, for which breeders charge high royalty, and thus, the cost of planting material becomes high. In addition to elite planting material, prevalence of hi-tech production as well as preservation technology is also low. Perhaps an economic fine-tuning is necessary between the level of technology and labour input. Developing indigenous technology and new varieties will further reduce the power of suppliers. It is observed that Suppliers can raise prices or reduce quality independently and the products needed are not ordinary. However there are a large number of potential suppliers available and the producers are well informed about the supplier’s product and market and most of them are using services from professional consultants. Moreover substitutes are in most cases abundantly available. This will give a little negotiating power to the supplier thereby slightly increasing the power of this force in their favor. Thus this force makes the floriculture sector in Pune attractive and provides competitive advantage to the floriculture firms in Pune.

The power of supplier can be further reduced by
• Developing indigenous technology and new varieties will further reduce the power of suppliers.

• Most businesses don’t have the resources to produce their own inputs. Hence they can consider forming a partnership with your supplier.

• Reduce inventory costs by providing just in time deliveries.

• Enhance the value of goods and services supplied by making effective use of information about customer needs and preference, and

• Speed the adoption of new technologies.

• Another option may be to increase your power by forming a buying group of small producers to buy as one large –volume customers.

6.2.2 Bargaining power of buyers

The grand average scores of the seven forces used in survey for the Bargaining power of buyers force is 3.2. According to the forces’ strength classification the strength of this force is ‘High’. This indicates that the floriculture firms in Pune have less competitive advantage in regards to this force.

There are two main strands of buyers- auction and whole sellers & retailers. The prominent role of the auctions should be seen as a facilitating marketing institution. At that place, sellers and buyers meet each other. It is the number of sellers and buyers that is most important, not their concentration at one place. The growth potential of buyers is determined by the growth rate of consumption. In most European countries the consumption of cut flowers is still growing. However, there will be a shift to the supermarket, as mass market, which is very price sensitive. supermarket chains overseas like TESCO, Sainsbury, Wal-Mart, Asda, Sears, Carrefour, Metro, K-Mart and the likes are looking for large quantities of flowers, latest varieties and a well-defined supply chain. The flower shops are quality sensitive and demand differentiated products; however, the volume per shop is low. The market volume of supermarkets will increase, partly at the cost of the flower shops. These general market developments at the retail level are sufficiently specified for this general analysis. If a country
wants to make a business plan to increase its market share in a specific niche on a specific market, the analysis needs more market information.

Buyers can easily switch between growers: the auction facilitates this process. Many growers offer substitutes. Growers can also switch between wholesalers; however transaction costs will increase unless the growers also use the auction as facilitator.

The information from the auction is public; even non-members can obtain price and quantity information. The auction prices are a benchmark for the international price formation. However growers do not have information about the sales from the wholesalers to the retailers.

Substitute products are plentifully available; the consumer cannot discriminate between almost similar varieties or colors. On the other hand, a grower cannot easily switch between varieties: the cropping plan is at least one year, and for roses (which are perennials) several years.

The price has a major impact on the performance of wholesalers. Price sensitivity has the largest impact on the profitability of growers: their cropping plan is determined for a longer period. The wholesalers are dealing daily, in most cases without any price agreements. Innovative flowers (colour, shape, variety) get a price premium.

It is observed that Buyers are very price sensitive are well informed about different products’ characteristics. is power of the buyer is further increased as they can easily switch to the competitors’ products. Moreover buyers of products are other market actors, which can influence the final consumer’s purchase decision. The peculiar characteristics of seasonality and perishability make it difficult for the producer to the negotiate higher prices. Thus the floriculture firms in Pune are subjected to high price and quantity risks with changing consumer demands and production conditions.

Hence it is proved that the Bargaining power of buyers is high in the floriculture sector in Pune. Thus this force makes the sector less attractive and provides less competitive advantage to the floriculture firms in Pune.

Reducing the bargaining Power of Buyers: the bargaining power of customers can be reduced by increasing their loyalty through partnership or loyalty programs, selling directly to
consumers, or increasing the inherent or perceived value of product by adding futures or branding.

6.2.3 Barriers to entry

The grand average scores of the seven forces used in survey for the threat of new entrants force is 2.6. According to the forces’ strength classification the strength of this force is ‘Low’. This indicates that the floriculture firms in Pune have a high competitive advantage in regards to this force. Skills are an important entry barrier for the floriculture industry. The skills are in three major areas: 1) production skills at farm level, 2) organizing the post-harvest logistics and marketing system, and 3) handling phytosanitary, customs and other international trade issues. Branding is very unusual in the flower industry; therefore different varieties of cut flowers are chosen as product differentiation. Membership of UPOV can be used for access to new or innovative varieties and cultivars. In general, buyers can easily switch to other flower producers. Having a certified code of conduct such as MPS will help to lower transaction cost or buying flower from a country. The major European and African exporters comply with MPS certification standards.

It is observed that it would be difficult for a new entrant to have enough resources to compete efficiently and to persuade distribution to accept their products. This increases the entry barriers for new entrants. Further there are high start up costs for the business and small scale entrants face considerable cost disadvantages. Thus it will be more difficult for a new entrant to enter the market and these forces decrease the threat of new entrants. There are high barriers to entry in the floriculture industry in Pune. Hence it is proved that the threat of new entrants is not high in the floriculture sector in Pune. Thus this force makes the sector attractive and provides competitive advantage to the floriculture firms in Pune.

Reducing the threat of new entrants

The threat of new entrants can be reduced by enhancing market/brand Image, Utilizing patents and creating alliances with associated products.

6.2.4 Threat of Substitutes
The grand average scores of the seven forces used in survey for the threat of substitutes force is 3.2. According to the forces’ strength classification the strength of this force is ‘High’. This indicates that the floriculture firms in Pune have less competitive advantage in regards to this force.

Substitute products can come in many shapes & sizes, do not always come from traditional competitors. It’s more difficult for a firm to try to raise prices and make greater profits if there are close substitute and switching costs are low. When price is the customers primary motivator, the threat of substitutes is greater. Substitutes are plentifully available at low switching costs, as mentioned in the main groups of determinants. Meier (1998, p. 275) expresses this as follows:

‘A red rose bought at a supermarket somewhere in Western Europe today might come from Colombia, or alternatively from the Netherlands, Italy, Israel, Morocco, Kenya, Ecuador, or several dozen other places. Countries with different factor endowments compete to produce what, in the end, looks like the same product.’

Providing services to the retailers can decrease substitution. This needs partnership with the retailers. It is observed that there are many substitutes for flowers and there is a strong competition from substitutes. Further there are substitute with a better price-performance ratio and buyers easily switch to new products-substitutes. It is also observed that substitute products limit the profitability of this industry and customers are not loyal to existing products. Hence it is proved that the threat of substitutes is high in the floriculture sector in Pune. Thus this force makes the sector less attractive and provides less competitive advantage to the floriculture firms in Pune.

6.2.5 Rivalry among Competitors

The grand average scores of the seven forces used in survey for the threat of new entrants force is 2.7. According to the forces’ strength classification the strength of this force is ‘Low’. This indicates that the floriculture firms in Pune have a high competitive advantage in regards to this force. Because companies in an industry are mutually dependent, actions by one company usually in might competitive retaliation and analysis of rivalry looks at the extent to which the value created in an industry will be dissipated through head to head competition. If the competitive forces is weak, companies may be able to raise prices, provide less product...
for the price, and earn more profits. If competition is intense (high), it may be necessary to enhance product offering to keep customers, and prices may fall below break even levels.

Is is observed that Price cutting is a common competitive action in floriculture industry and Firms compete intensely to hold and/or increase their market share. It is also observed that the producers cannot store the product to sell at the best times which slightly increases the intensity of competition. It is seen that there are a small number of competitors and it is not difficult for customers to switch between products. The higher market share has been reached with a low number of varieties. High fixed costs drive firms to full capacity. The perishable nature of flowers precludes storing the end product. Both lead to pressure on the price. Specialized assets, fixed costs, strategic barriers, emotional barriers and government restrictions result in high exit barriers. There are high costs for existing the business. If liquidation would result in a loss, business that invested heavily in their facilities will try hard to pay for them and may resort to extreme methods of competitions. Low level of entry barriers results in low returns, in stable returns if the exit barriers are also low and in risky returns as the exit barriers are high. The annual fluctuations in returns at farm level indicate that the exit barriers are on the high side. Hence rivalry does not have much influence on the sustainability of an industry in developing countries.

Hence we can conclude that the respondents do not support the hypothesis H1e. “There is intense Rivalry among competitors in the floriculture industry in Pune”. Hence it is proved that intense rivalry is not there in the floriculture sector in Pune. Thus this force makes the sector attractive and provides competitive advantage to the floriculture firms in Pune.

Threats of rivalry can be reduced by employing a variety of tactics. To minimize price competitions, products must be distinguished form your competitors by innovating or improving features. Other tactics include focusing on a unique segment of the market, distributing product in a novel channel, or trying to form stronger relationship and build customer loyalty.

**6.2.6 Combined effect of the forces:**
It is observed that out of five hypothesis only two forces bargaining power of suppliers and threat of substitutes have ‘High’ strength i.e. their strength is more than 3.1 Thus these two forces reduces the competitive advantage of the floriculture firms in Pune. It is observed that for the other forces bargaining power of suppliers, Barriers to entry to new entrants and Rivalry among competitors have the mean of 2.6,2.6 and 2.7 respectively i.e. as per the classification their strength is ‘Low’. Thus these three forces increases the competitive advantage of the floriculture firms in Pune. The grand average of combined strength of these five forces comes to 2.8. i.e. strengths of the forces is ‘Low’. Lower strength indicates significant competitive advantage for the floriculture firms and a attractive sector. As per the classification we can conclude that the competitive advantage of floriculture firms in Pune is significantly high. Hence we conclude that “The floriculture sector in Pune has significant competitive advantage”.

6.3 Sustainability:
The main of the research is to find out if the floriculture industry in Pune is sustainable. Market growth and competitive advantage will be used as indicators for sustainability. From the responses shown in previous chapter it is observed that there were 95% of the respondents who supported the statement and agreed that there is high market growth in floriculture. There were only two respondents who were neutral and not a single respondent opposed the statement. The mode was found out to be ‘Agree’ and weighted average for this statement comes out to be 4.2 . Hence this statement is strongly supported and it can be concluded that there is high market growth in floriculture. There were 89% of the respondents who supported the statement and agreed that the floriculture industry in Pune is sustainable. There were only four respondents who were neutral and not a single respondent opposed the statement. The mode was found out to be ‘Agree’ and weighted average for this statement comes out to be 4.1 The previous section has already shown that “The floriculture sector in Pune has significant competitive advantage”. Market growth and competitive advantage are used as indicators for sustainability. Hence it can be concluded that “The floriculture industry in Pune is sustainable”
The result of testing both the hypothesis is presented in the table 6.3 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 6.3 : Result of hypothesis testing
Thus it is concluded that respondents support both the hypothesis and both are proved to be true.

6.4 SWOT Analysis

This section provides and SWOT analysis of the floriculture sector.

A SWOT (strengths, weaknesses, opportunities, and threats) analysis is the general, qualitative starting point for any competitiveness strategy. While the SWOT analysis is not a very precise tool, it is a good way to provide a general characterization of the current state of the industry, identify issues, and generate discussion. It is particularly useful as a neutral facilitation tool to focus an initial discussion on the perceived state of the value chain or to perform initial brainstorming on the potential opportunities and risks. It is also a good way of identifying areas to examine in greater detail. (Webber and Labaste, 2010)

This section consolidates the results from existing studies, policy documents, interviews and secondary research. Issues are selected that have a particular impact on the industry’s competitiveness. The purpose of the SWOT is to fuel discussion and to be used as an initial input for a more detailed value chain analysis as part of the subsequent study.
The Indian floriculture industry in general and floriculture units in Pune in particular, are characterized with specific strengths, weaknesses, opportunities and threats. This section attempts to analyze the Floriculture sector, assessing the affect of external and internal factors on the industry. SWOT analysis framework is employed to give a more in-depth strategic insight into the sector's current development, emphasizing its internal strengths, weaknesses, and external opportunities and threats.

In the first stage the factors within the circle of influence, i.e. the strengths and weaknesses of the floriculture firms in Pune are identified. This is followed by a closer look at factor external factors that are beyond the control of the floriculture firms which affect the competitiveness are described.

6.4.1 Strengths

This section lists the strengths of the floriculture sector in Pune.

• Cheap labour. Floriculture industry is basically a labour-intensive industry and the labor cost are one thirds the cost of production. The plants require 24 hours-a-day care and attention and the protected green houses system needs people to manage the production process at different stages. Labour in Pune is available at very cheap rates compared to the ones in developed countries. The labour cost in India is only a fraction of the cost in the Netherlands and elsewhere in Europe. For instance, the cost of skilled, qualified supervisory manpower in India is only one- tenth of that in the Netherlands.

• Well established supply facilities: For the success of floriculture industry, availability of infrastructural facilities such as steel, aluminum, irrigation system, fertilizers, pesticides, testing labs, air-conditioning and refrigeration equipment are very important.

• Varied Agro Climate conditions: For the production of flowers climatic conditions are very important. The temperature profile, humidity and abundant sunlight play a very vital role in deciding the quality and quantity of the flowers. Therefore production of flowers throughout the year is possible.

• Government support: The Governments have identified floriculture as an sunrise sector and are providing strong support through various policies and schemes.

Chapter 6 : Analysis and Discussions Page no: 215
• Involvement of knowledgeable entrepreneurs and established organizations

• Geographical Location: Flowers are a perishable commodity and 40% of the cost is incurred on the post-harvest operations. Therefore it is imperative that the production centers are located nearer to the main markets of Europe, Japan and USA. The details given here under show that India has a strategic location advantage compared to the other major producing centers.

<table>
<thead>
<tr>
<th>Country</th>
<th>Place</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>Johannesburg</td>
<td>5608 miles</td>
</tr>
<tr>
<td>Kenya</td>
<td>Nairobi</td>
<td>4148 miles</td>
</tr>
<tr>
<td>Brazil</td>
<td>Rio de Janeiro</td>
<td>5943 miles</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>San Jose</td>
<td>5763 miles</td>
</tr>
<tr>
<td>India</td>
<td>Bombay/ Delhi</td>
<td>4262/ 3954 miles</td>
</tr>
</tbody>
</table>

• Further, India has advantage of the least flying duration (6 hours) with respect to Japanese market. Other far eastern markets as also the gulf countries are within 3 to 5 hours flying time. This is again a major advantage as it means significant savings in terms of freight and transport.

• Managerial Expertise and Team Work

• Quality Consciousness and Achievement Motivation

• Soil Suitability

• Quality produce and Export Potentially

• Traders and farmers are starting to build up considerable experience in regional trade

• Provides employment for a large Indian population including women, living in rural territories.

• Recent advances in technology and government initiatives support the development of the sector. In pursuance of the government policy to strengthen and promote IT led governance, the department of agriculture and cooperation has been taking various measures to promote
the use and application of technology with the aim of making agriculture “online” for the use of farmers, exporters, and traders, etc.

6.4.2 Weakness

The following section lists down the weaknesses of the floriculture sector in Pune:

- Shortage of skilled management, supervisors, and experienced labor

- High Cost of Finance: Floriculture is essentially a capital-intensive industry. With inflation persisting, financial institutions have hardened the rates of interest. As it is, the cost of capital is much higher in India than in the developed countries. So, high interest cost is a disadvantage which threatens to eat into the profits of floriculture units. There is a lack of affordable credit

- Lack of appropriate insurance products tailored for the industry

- Poor airfreight capacity: Currently there is a shortage of air freight capacity especially during the peak period leading to a backlog at the airports. This could be a serious disadvantage for a perishable product like cut flowers.

- Exorbitant Air freight cost: Air freight rates for transporting flowers from India are very high. Flowers are highly perishable products and transported by airfreight to the main consumer markets. Availability of sufficient air cargo capacity at competitive prices with a daily frequency is of high importance. While flowers fill the cargo space of outbound flights, other cargo has to be available for inbound flights.

- EEC customs duty on imports from India: Currently all exports from India to the EEC are subject to custom duty at 15% during summer and 10.5% in winter. Countries such as Israel, Columbia, Kenya and Zimbabwe do not pay this levy. Thus the EEC discriminates against India. The commercial attachés of the Indian diplomatic missions abroad need to seek parity or obtain concessions through bilateral and multilateral talks.

- Industry associations are not very active

- Poor financial performance of some of the early floriculture investments has made bankers nervous

- A tradition of lack of cohesion and cooperation amongst exporters
- Lack of economies of scale

- Relatively small base of commercial farmers

- Poor infrastructure in many rural areas. Poor road conditions in some production areas. Inadequate facilities at the sea port for handling fresh produce. Pre and Post-harvest losses due to inadequate infrastructure

- Under-developed marketing system with poor MIS for farmers and traders. Lack of an integrated and comprehensive data and information management system. Difficulties accessing accurate data and market information and dependency on exchange rates. There is absence of marketing network and co-ordination.

- Lack of rural collection centers for farmer groups

- Lack of R&D activities, low level of innovation. Inadequate financial, human and physical resources for research and development on varieties. Inadequate coordination among research institutions.

- Insensitivity of some firms to the principles of CSR.

- Inability of smallholder farmers to access high-quality planting material due to high costs and royalties of patented material.

- Little promotion of the national brand.

- Dependence on imported pesticides

- Bureaucratic and slow Government support and incentives

**6.4.3 Opportunities**

The following section lists down the awaiting opportunities for the floriculture sector in Pune:

- The awaiting opportunities are:
  
  - Expanding market opportunities as production increasingly moves away from Europe
  
  - Increasing world market demand and Market Growth particularly outside Western Europe.
• Possibility to improve quality for export and gradually develop capabilities to meet buyer’s requirements

• Able to target both the booming local market and foreign markets

• Vertical integration of production to include delivery to clients

• Increasing role of supermarket channel and direct selling. Interest in supply chain integration to reduce intermediate costs and improve time-to-market.

• Demand for bulk, but also specialty varieties

• Market diversification, i.e. USA, Russia, Canada

• Availability of new and unique varieties

• Shift of adding value from the wholesaler towards the growers in developing countries (demand for mixed bouquets remains strong).

• Technological developments, amongst others in sea freight.

• Availability of research results from abroad.

• Difficulties in other leading producer countries like Ecuador and Israel.

• High cost of production in the developed countries is providing an opportunity for labour-abundant countries like India. Stringent environmental laws and restrictions in the developed countries will lead to further escalation of production cost and the floriculture units in these countries have to pay heavily for pollution abatement.

• In India environment norms are yet to be extensively and strictly followed, thus still permitting the hi-tech floriculture units a leeway to escape from environment mandates. This enables Indian floriculture units to continue to produce at a comparative cost advantage. Moreover, the magnitude of environmental pollution created by the Indian hi-tech floriculture producers is much less than that by the European producers.

• 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.
• One of the ways to overcome the problem of unstable export market for the Indian flower growers is to diversify production and not to depend on cut rose production alone. The Indian growers need to explore other high-value product alternatives, such as propagating materials of speciality crops for exporting purposes.

• Scope to grow quality flowers if infrastructure support is offered.

• High growth in the domestic market. The domestic demand for the cut flowers would increase with the expansion of organized retail and super market chains, coupled with the rising income of the middle class. If the domestic growers miss this opportunity, India may be flooded with imported flowers. The growth in the domestic market will give a fillip for the growers to grow export quality flowers and thus increasing the foreign revenue.

• Wide scope for operational and commercial viability if capacities are better utilized.

• Experienced management available to synergies the increasing acreage under cultivation.

6.4.4 Threats

The major threats shaking the foundations and eating into vitals and viability of the floriculture units are observed to be:

- Threats to competition from countries like China, South Korea and Africa
- Currency fluctuations and energy costs
- Rising freight costs
- Increased costs of production and Real estate boom
- Failure in adopting modern technologies and in providing good quality products for export
- Mismanagement of collective export organization, and/or lack of discipline among the organized growers
- Labour union and political instability
- Exploitation by the traders and truckers that leaves the growers mired in poverty
- Globalization and opening up of the international market for players from south Africa and Zimbabwe, known for better quality products.
- Marketing myopia of the units and inability to practice retention marketing.
- Reluctance of the funding agencies to extend financial support.
- Since India does not have appropriate intellectual property protection mechanisms for plant materials, foreign breeders are often reluctant to sell new varieties to Indian growers for fear of illegal proliferation through asexual propagation.
- The days of seemingly cheap labour are not likely to continue in future. Several floriculture units have already started feeling the heat of frequent labour shortage and high attrition rate in view of the wide range of more lucrative urban fringe jobs available now.
- Stagnating demand due to the economic crisis.
- Computerization and virtualisation of the supply chain.
- Increasing scales and professionalisation.
- Pressure on margins.
- Increasing social and environmental concerns (CSR, certification, carbon footprints, etc.).
- Increasing barriers to smallholder involvement.
- Erratic weather patterns.
- Prevalence of pest and diseases emanating from climate change.
- Volatility of transport costs and costs for fertilizers and pesticides.
- Oversupply due to continuing growth of global production.
- Increasing competition from Latin American producers in the European market.
- Other countries offer more attractive incentives and provide a quicker, more helpful support service to new investors.
- Failure to control diseases and pests in the farms
- Increasing production scale and higher productivity in competing European countries.
- High level of European research on production techniques. Application of high-tech production methods by European growers, which enables them to grow products of the highest quality.
- Shift of production from central and northern Europe towards peripheral Europe.
- A threat of overproduction and downward price pressure, particularly in the case of roses.

6.5 Generic strategy:
It is observed from the previous discussion that the floriculture industry in Pune has significant competitive advantage and is sustainable. The SWOT analysis has helped in identifying the “strength, weaknesses, opportunities, and threats”. Combined with SWOT, PESTLE analysis will help to understand the risk associated with launching a particular product into a market. It is also there is a high market growth in this sector. 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” Thus it is necessary to integrate the all three analysis to arrive at a strategy that floriculture firms in Pune can follow to achieve long term sustainability. Fig 6.1 below shows the integration of all the three analysis and the suggested competitive strategy to follow.
Strategies need to be followed by the floriculture firms. Therefore, using the generic strategy route for exports and are mainly producing only roses. Thus to be sustainable in future new route is gaining more importance. There are also threats from rising costs due to increase in market structures and intense competition which are facing the industry. The direct market route to low cost of labor, real estate and freight cost. Moreover, there are threats of changing competitive advantage and there is high growth in the market. The combined strength of the five forces of Porter’s five forces is ‘Low’ and hence the industry is considered to be attractive. 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 heavily dependent on the Auction route for exports and are mainly producing only roses. Thus to be sustainable in future new strategies need to be followed by the floriculture firms. Therefore, using the generic strategy

**Figure 6.1** Multi theoretical model of floriculture firms in Pune for analysis and selection of competitive strategy & international market entry mode

If the strength of the forces is high, most probably firms will compete on the price level, which implies the choice of low cost leadership strategy. It also indicates that an industry is not attractive. If the strength of the forces is low, the industry is considered as attractive. Nevertheless Porter suggests that in this case companies should preferably apply strategies, which can better differentiate them from the competitors. After integrating all the three analysis we can conclude that the floriculture industry in Pune is sustainable, has significant competitive advantage and there is high growth in the market. The combined strength of the five forces of Porter’s five forces is ‘Low’ and hence the industry is considered to be attractive. 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 heavily dependent on the Auction route for exports and are mainly producing only roses. Thus to be sustainable in future new strategies need to be followed by the floriculture firms. Therefore, using the generic strategy
classification it is suggested that floriculture firms in Pune must apply the differentiation strategy.

Hence it is suggested that along with maintaining low cost the floriculture firms in Pune must adopt the strategy of “Differentiation“ . This can be done by moving up the value chain by getting into technological licensing, joint ventures and forging direct marketing relations with the buyers. The firms should develop abilities to produce variety of flowers of high quality. They should develop the ability to product new variety of roses with differentiated characteristics such as longer shelf life and colors.

6.6 Summary:
This chapter has proved the micro and micro level analysis of the floriculture industry in Pune. PESTLE and Porters five force analysis was used to analyze the external environment of the floriculture industry in Pune. It is concluded that the floriculture industry in Pune has significant competitive advantage and is sustainable. 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 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“ .