“STRUCTURE AND ORGANIZATION OF FLORICULTURE SECTOR IN PUNE WITH SPECIAL REFERENCE TO ISSUES RELATING TO INTERNATIONALIZATION FOR ATTAINMENT OF SUSTAINABILITY”.

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ABSTRACT

1 Overview of Floriculture sector:

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. Europe, USA and Japan are the major consumers of floriculture products. 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.

Floriculture in India has been identified as a thrust export sector in India. 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) 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 important cut flower crops in the country are Gladiolus, Tuberose, Asters, Gerbera, Carnation, Anthurium, Lilium, and Orchid. While exports remain the prime motivator for Indian flower cultivators, the demand in the domestic market is also enormous and is on the rise. Government of India acknowledges the potential of the floriculture industry and has conferred 100% export oriented industry status. 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.

Exports of floricultural products have been growing at a CAGR of 15 percent over the past decade. However, the growth of the industry has been significantly affected by the recent global recession largely due to decline in demand in all major markets. Marketing of cut flowers is still at the early stage of growth or development. Marketing of Agriculture as well as Horticulture produce has always been an issue of concern in India. 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.
2 Theoretical framework and aims of research:

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. The sustainability of the industry is therefore determined by the competitive advantages and the strategic behavior. Porter’s approach is well suited to analyze the competitive advantages. it is very clear that an industry will be excluded from international chains if the capabilities in the supply bases are insufficient to meet the international demand standards – which include a competitive price. Theories on how to derive a strategic scope and how to derive a strategic advantage are also available. Cooperation and customer-oriented support seems to be more beneficial, as is a chain governed by foreign buyers or investment. However, the question is: will any competitive advantage be sustainable?

From the review it is evident that there is a major gap in literature pertaining to the floriculture sector particularly India. There are very few studies and surveys related study of floriculture sector in India. Baring a couple of studies there is no research conducted to apply and test porters five force model to this sector. Moreover there is no study to apply this to the floriculture firms in India. Previous research have focussed on using single framework or theories and use of multiple frameworks and theories is rare. Also from the review it can be concluded that internationalization and sustainability is not a major theme in these researches.

The objective of this study is to find out whether indian floriculture industry is sustainable and can it compete in the international markets. The main of the research is to evaluate and propose strategies for sustainability of Indian floriculture firms. Market growth and competitive advantage will be used as indicators for sustainability.

Based on the previous discussions the main aim of the research is to study “Structure and organization of floriculture sector in Pune with special reference to issues relating to internationalization for attainment of sustainability.”

The conclusion is directed to the usefulness of the theoretical approaches for analyzing the sustainable development of the floriculture industry in developing countries. The aim of the research is to investigate marketing strategies and to provide a timely analysis of trends, opportunities and export potential of flowers from India. It will analyze how international trade is currently done with respect to floriculture and propose strategies that would help in boosting the floriculture export. The research will identify the major international and domestic floriculture companies in Pune and also investigate and
propose international orientation and marketing strategies that they could follow. To carry out exploratory research of the problems faced by the floriculture companies in Pune to export and find probable solutions to them. The research will try to give an insight into the floriculture production and marketing processes and also the steps taken by the local Governments, Chambers of commerce and company associations to make Pune the floriculture export Capital of India.

The macro level analysis will be done by using PESTLE analysis. The micro level analysis will be done Using Porter's Porters five force model. 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 facing the floriculture industry in Pune. The conclusion is directed to the usefulness of the theoretical approaches for analyzing the sustainable development of the floriculture industry in Pune. Dunning’s OLI theory and Roots entry mode decision framework are used to understand the internationalization of the respondent firms. Figure 1 below shows the multi theoretical framework used for this research.

3 Hypothesis
Based on the literature review, research aims and discussions the following hypothesis can be developed for testing.

H1 The floriculture sector in Pune has significant competitive advantage
Using Porter's model of international competitive advantage, the flower export industries will be examined. In order to study the above hypothesis it can be broken down into 5 parts as per the five forces as described in the Porters model.

H1 a. The Bargaining power of suppliers is high in the floriculture sector in Pune
H1 b. Bargaining power of buyers is high in the floriculture industry in Pune
H1 c. Barriers to entry to new entrants are less in the floriculture industry in Pune
H1 d. The floriculture industry in Pune has high threat of substitutes
H1 e. There is intense Rivalry among competitors in the floriculture industry in Pune
The main aim of the research is to evaluate and propose strategies for sustainability of Indian floriculture firms. Market growth and competitive advantage will be used as indicators for sustainability. Hence hypothesis 2 is as follows

**H2 The floriculture industry in Pune is sustainable**

**4 Scope of research.**
The impact on poverty reduction and the issue of capacity building are not within the scope of this study. Sustainable development in this research has a rather limited and in fact an economic scope. The variables share on the world market, its development, market growth and a competitive advantage are used as indicators for sustainability. Since high tech floriculture is mainly used for producing cut flowers this research will focus only on cut flowers. The scope of research of this thesis is limited to Pune region.

**5 Analysis of Data:**
The hypotheses are empirically examined through a survey of 37 floriculture firms in Pune which was administered through personal interview with CEOs/presidents or top level management executives of the firms. The data generated from quantitative survey research was coded and inputted into a data sheet. This data was then electronically analysed using a statistical package SPSS. Bar charts, Pie charts, weighted averages and frequency distribution was used to present analysis and structure of the floriculture industry in Pune. The data for hypothesis was collected in a five point Likert scale. The data for the questions which used five point Likert scale was analysed using weighted averages, frequency distribution and mode. Pie charts and bar charts were used wherever necessary.

**6 Results and analysis**
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. 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. 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 dependance of the floriculture sector in Pune on exports. Europe is the most favored destination for exports. Holland and UK are the most favored destination in Europe for exports followed by Germany. The next destination for exports is Japan followed by Australia and Gulf. Thus the floriculture firms in Pune are using direct
and indirect 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.

**Hypothesis:** This section shows the results of hypothesis testing.

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

This hypothesis was broken down into five sub hypothesis for each of the Porter’s Five forces. 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. The table 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>

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 a 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 weighted 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.

The result of testing both the hypothesis is presented in the table 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 Multi Theoretical Model

Figure below 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,weakness,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 2 below.

**Figure 2** Multi theoretical model of floriculture firms in Pune for analysis and selection of competitive strategy & international market entry mode

Figure 3 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. The model can also be applied to other sectors. Thus the model provides a simple tool for analysis which can use the perception of the managers and available data to arrive at important strategic decisions without the need of cumbersome statistical models. This can act as a guideline for managers in the floriculture industry to aid them to select appropriate strategy and select the right international market entry choices.

**Figure 3** Multi theoretical model for analysis and selection of competitive strategy & international market entry mode
8 Recommendation and suggestions:

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

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”. The floriculture firms in Pune must increase their degree of Internationalization and adopt higher control entry modes. Following the differentiation strategy of 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. 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. 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. It is recommended that the firms should get international certifications, expand, increase their adoption of new technologies and IT, and focus on R&D and human resource development. The firms should follow a consortium approach.

It is recommended and suggested that the Government should focus on developing infrastructure, integrated cold chain, reduce freight cost and tariff and non tariff barriers, reduce taxes on import of raw material for this sector, offer affordable credit, finance and insurance schemes to further develop this sector. It is necessary to emphasize that cooperation and commitment, in terms of education, research, funding, and communication is requisite in order for the flower industry to succeed in the highly competitive and volatile global markets.

9 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. 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.

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. 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.

10 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.

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