American Journal of Economics and Business Administration 2 (2): 160-168, 2010
ISSN 1945-5488

Strategy in Turbulent Environment: A Case Study of Indian Domestic Company

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Abstract: Problem statement: This case deled with an Indian pesticide company in the turbulent environment, which had to adopt a strategic shift due to changing environmental factors such as increasing competition from multinationals, regulatory forces, changing technologies. The case presented environmental situation in the industry and also described the events which led to the turbulency. **Approach:** This is a teaching case written with the objective to familiarize the students with concept of environmental forces affecting the industry in general and a company in particular. The students were also expected to work out strategies for the said company under a given strategic situation. The case had mainly used secondary data published in website, annual reports of the company and also the articles and interviews published in business dailies. **Results:** The findings indicated the competitive forces affecting the pesticide industry and the said company. The results described how the domestic company had to reorient its strategies in order to cope with environmental turbulence created by regulatory, competitive and market forces. Related diversification, restructuring, international market entry and concentration and new product development were some of the strategies adopted by the company. **Conclusion/Recommendations:** The case discussion evolved the strategies for the company in corporate, business and functional domain and hence provides useful implications for managers. This is a useful resource for academicians, researchers and students and can be used in strategic management and business environment courses as a teaching case. The study opens new vistas of business management research for the Indian as well as international pesticide industry. Further, both case studies based as well as empirical research could be taken up to find the impact of environmental forces on industry and the strategic reaction of the firms in the industry.

Key words: Strategy, turbulent environment, India, Indian pesticide industry, competitive forces, corporate strategy, business strategy, strategic options, environment

INTRODUCTION

It was difficult time for the pesticide companies during 1995-2005, when the competitive, regulatory, environmental, technological forces were changing fast to pose a threat to the domestic pesticide companies. The environmental situation changed so fast that firms had to struggle hard for maintaining market share and profits. Excel Crop Care, a domestic firm, also found it hard to thrive amidst this turbulent environment with its reliance on only a few maturing generic molecules, traditional sales force and marketing practices. It was difficult to match the competition posed by multinationals with new generation molecules and strong marketing capabilities. Also, by this time, the environmental stakeholders started criticism of firms marketing toxic molecules in the market. The domestic firms had also realized the threat and turned towards acquiring new products and markets and diversified into related businesses to face the competition. The management of Excel Crop Care was worried about the future, as the present products and markets did not offer many promises. Obviously, the situation demanded a strategic change in order to win the competitive race:

> The recent worldwide spurt in food grain prices and food grain shortages have brought farming into sharp focus. The agriculture sector is expected to receive due importance, funding and growth impetus. With forecast of near-normal monsoon in the current year, the short-term outlook for the agrochemicals

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industry and your company appears reasonably good. Exports continue to remain focus area of growth for the company and it continues to make efforts to strengthen its presence the existing export markets and penetrate new markets (A.C. SHROFF, Chairman, Excel Crop Care Mumbai, 30th April, 2008)

MATERIALS AND METHODS

This case study deals with the situation of the company faced during 1995-2005. The data for the case has been collected from mainly secondary sources. The data on pesticide industry has been collected from Indian Crop protection Association, Directorate of Plant Protection & Quarantine, Indian Chemical Statistics etc. The data on the firm has been collected from last ten years annual reports and websites and other relevant literature of the company. The data has also been collected from media reports and mangers' interviews. Through the given data on pesticide industry and firm, we present a situation in the industry as well as the said firm in order to find out how managers (students) will react to this particular strategic situation.

RESULTS

The pesticide industry in India: The products of the Indian pesticide industry are used as agricultural inputs to protect the crop from harmful pests and diseases besides having other professional uses such as public health, animal health and construction purposes. The industry has been essentially involved in the production of generics and is the second biggest producer of active ingredients in Asia, next only to Japan and is ranked 12th in the world. Around 80-85% of indigenous production and balance of technical pesticides are being imported. The pesticide industry in general has large domestic market, but a wide export market also exists. Insecticides are the largest product sector contributing to 59% of the total market. Around 144 insecticides are approved for use on crops. The key crop outlets for insecticides are cotton and rice, which account for about 45 and 23% respectively of the total value of insecticide sales (Narula and Upadhyay, 2008a).

It is one of the most dynamic generic pesticide industries in the world having a total installed of technical grade pesticides to the tune of 125 thousand MT .It has ten multinational companies and 400 pesticide formulators (large, medium and small Scale). Pesticides are classified into insecticides, fungicides and herbicides/weedicides. Insecticides dominate consumption with around 59% of estimated consumption of pesticides, followed by fungicides (18%), herbicides/ weedicides (16%) and others (5%). Any insecticide which is to be manufactured, marketed, exported or imported in the country has to be registered with the Central Insecticide Board. A Registration Committee (RC) has been constituted under Section 5 of the Insecticides Act, 1968 to register insecticides after scrutinizing formulae, verifying claims of efficacy and safety to human beings and animals. The per hectare consumption of pesticides in India is estimated at 0.5 kg which is not uniform and varies vastly across the country with the agro-ecological settings, cropping pattern, irrigation facilities, intensity of pests and diseases, resistance and resurgence of insect pests. Cotton, paddy, vegetables and fruits are major crops where pesticides are used. Cotton accounted for 45% of pesticide consumption in India, followed by rice (23%), f1(9%), vegetables (7%), wheat (6%) and pulses (4%) in 2001-2002, whereas presently paddy is the highest pesticide consuming crop with 29% share followed by cotton with 26%. Oilseeds, fruits and vegetable markets are growing.

The industry has mainly two strategic groups i.e., Domestic companies and multinationals. Domestic companies are mainly fully to partially integrated, manufacture mainly generic molecules and market their products in both domestic as well as export markets. Indian companies are also having low cost manufacturing base for generics, which give them a competitive edge in global markets. Besides this, domestic firms have innovated in process based research and possess the knowledge to manufacture the product at very low cost. At home front, these firms have strong marketing capabilities backed by intensive distribution channels and field force. Multinationals enjoy the strong research capabilities of their parent companies and had innovative patented solutions. These are not backwardly integrated companies, but quite lately they started recognizing India as a manufacturing base and set up manufacturing facilities for supplies across the globe. The MNC's spent heavily on brand promotion, which helped them establish in the market within a very short period (Narula and Upadhyay, 2008a).

The paradigm shift in pesticide industry (1995-2005): The pesticide industry passed through a phase of paradigm shift during last decade, which was induced by environmental pressures due to maturing products, outdating technologies, rising environmental concerns from society and other concerned stakeholder groups. The entry of multinationals with new generation products in the market during early nineties also posed

a threat to Indian firms already fighting with mature products and regulatory concerns. A major sector of the Indian market was also dominated by unorganized sector. The hypercompetitive situation due to brand clutter and alternative products and solutions had squeezed the company margins. Introduction of Bt Cotton in the market had also ushered in technological revolution negatively impacting the sale of pesticides. The last decade had also seen consolidation in global pesticide industry which has strengthened their Indian multinational arms with respect to product portfolio and market functions. These companies such as Bayer, Syngenta, BASF, Monsanto in fact had expanded their portfolio through mergers and acquisitions. Similarly, realizing the need for having more innovative solutions rather than mere generic ones, Indian companies had also started acquiring product/brands in India as well as other markets. The firms were also looking for opportunities in other related sectors such as seeds, hybrid seeds, biotechnology products.

Companies were being criticized by environmental groups for manufacturing harmful pesticides which gained the public voice since the report on contamination of cold drinks and mineral water with pesticide residues by Centre for Science and Environment (CSE). Due to rising environmental concerns in society and among consumers, there was a great hue and cry to withdraw use of persistent molecules. With a view to review the continued use of pesticides in India that are either banned or restricted for use in other countries, the Government of India set up an Expert Committee, which took a few important measures during last few years, as it reviewed many pesticides and banned/phased out some of the toxic molecules. The fate of some important molecules such as Monocrotophos and Endosulphan was under the preview of the expert committee. The threat intensified with the entry of new technological substitutes such as Bt cotton, which had established themselves in the market.

During 1995-2005, the prices of generic molecules crashed down in the market. These molecules were either at the mature stage or were facing competition from new molecules. New molecules which were being launched by multinationals or other Indian giants commanded premium price. Their bargaining power of the consumer was increasing alongside hypercompetition in the market owing to increase in the number of brands offered. The usage pattern of different product lines was continuously changing. Insecticides had been occupying a major share in the pesticides sales. The use of weedicides in India was initially less because of cheap availability of manual labor to remove the weeds. This trend was in contrast to world pesticide market, which had a major share of herbicides in total pesticide sales. Out of the total 144 pesticides registered, there are 63 insecticides, 23 herbicides, 37 fungicides, which also show the dominance of insecticides in pesticide use scenario. But during late nineties, the sale of weedicides and fungicides grew up with commercialization of some crops such as soyabean, oilseeds, fruits and vegetables. These segments offered new opportunities for new molecules. The statewise consumption pattern shows UP., West Bengal, Uttarakhand, J and K as emerging markets of pesticides. Top five pesticide consuming states in 1995 were Andhra Pradesh, Uttar Pradesh, Punjab, Haryana, Gujarat and Maharashtra which contributed to 56.55% of the total pesticide consumption. Whereas in 2005, top five pesticide consuming states were Punjab, Haryana, UP., West Bengal and Maharashtra. (Narula *et al*., 2008a).

The industry had huge installed capacities for generics with very low capacity utilization. Insecticides dominate the production dominated by fungicides and herbicides. The industry manufactured 43 molecules in 2005, most of which were off-patent products like Malathion, Monocrotophos, Phorate, Endosulfan, Acephate, Chlorpyriphos, Mancozeb and Isoproturon. (Table 1-3).

Table 1: Usage pattern of pesticides tech grade for domestic agriculture use (000 MT)

Year	Insecticides	Fungicides	Herbicide	Others	Total
1995-96	35.9 (53.1)	19.1 (28.58)	10.5 (15.71)	1.46 (2.18)	66.9
1996-97	32.4 (48.54)	20.8 (31.26)	10.6 (15.93)	1.84 (2.80)	65.6
1997-98	40.0(48.87)	26.0 (32.18)	12.9 (15.77)	2.8 (3.43)	81.7
1998-99	62.4 (57.99)	30.2 (28.06)	13.7 (12.81)	1.20 (1.12)	107.5
1999-00	59.1 (59.15)	28.2 (27.98)	11.6 (11.54)	2.0 ((2.20)	90.9
2000-01	25.7(60.47)	8.3 (19.52)	7.3 (17.17)	1.2 (2.82)	42.5
2001-02	28.5 (61.15)	8.3 (17.81)	7.3 (15.66)	2.5 (5.36)	46.6
2002-03	28.5 (57.00)	8.5 (17.00)	8.5 (17.00)	2.5 (5.00)	50.0
2003-04	35.4 (70.80)	7.9 (15.8)	3.9 (7.80)	2.8 (5.60)	50.0

Compiled from sources such as Indian chemical statistics, 1995 and 2000 and directorate of plant protection and quarantine, 2005. Figures in parentheses indicate the percentage shares of product lines

Table 2: Major world exporters of pesticides

	Value of exports (US$ mn)			Share of world exports (%)		
	2001	2002	2003	2001	2002	2003
France	1,477	1,573	1,861	13.9	15.3	15.0
Germany	1,510	1,539	1,796	14.2	15.0	14.5
US	1,547	1,547	1,457	14.5	15.1	11.7
UK	981	1,023	1,098	9.2	10.0	8.8
China	549	592	730	5.2	5.8	5.9
Switzerland	598	460	696	5.6	4.5	5.6
India	288	306	375	2.7	3.0	3.0
Others	3,695	3,231	4,410	34.7	31.5	35.5
TOTAL	10,644	10,271	12,423	100.0	100.0	100.0

Table 3: Exports of pesticides from India

	Exports-MT (9M)				Exports-Rs. million (9M)				Realizations-Rs. kg^{-1} (9M)			
FY	2002	2003	2004	2005	2002	2003	2004	2005	2002	2003	2004	2005
Insecticides	37,816	42,978	49,072	35,255	12,197	13,305	14,562	10,751	323	310	297	305
Fungicides	7,515	7,682	12,083	10,568	722	814	1,362	1,558	96	106	113	147
Herbicides	2,237	2,093	3,032	2,641	381	436	424	383	170	208	140	145
Others	2,517	2,940	4,794	3,601	264	320	1,107	718	105	109	231	199
Total	50,085	55,693	68,981	52,066	13,565	14,875	17,456	13,410	271	267	253	258

Compiled by INGRES, 2005

Table 4: Financial performance of Excel Crop care Ltd. (Rs. mn)

	Mar. 05	Mar. 04	Mar. 03
Sales turnover	4154.80	3169.10	2825.20
Total income	435.42	321.00	295.19
Profit before interest, depreciation and tax	45.95	30.32	22.69
Profit after tax	22.22	10.38	3.84

Source: Annual reports

About Excel Crop Care Ltd: Excel Crop care is one of the major domestic players in the pesticide industry and is also one of the leading exporters of technical and formulations. Excel Crop Care came into existence when agribusiness division of Excel Industries was hived off in 2002 into a separate arm. Earlier, the pesticide business of the company was under Excel Industries Ltd. which used to primarily manufacture high quality chemicals relevant to the needs of Industry and agriculture. The products of the company, which are pesticides and pesticide intermediates, are marketed all over India and are exported to over fifty countries around the world. Excel has expanded its activities to provide the farmers with a broad range of products and technical guidance. This ranges from initial conditioning of the soil, through preparation for planting, seed selection, irrigation, pest and insect control, maximizing productivity and harvesting and post harvest management. Excel was also the first company in Asia and third in the world, to make Endosulfan technical and first in Asia to make butene diol-a major intermediate of Endosulphan. It is second in the world to develop Glyphosate technical (Table 4).

The company was equipped with fully integrated production linked to the development of process technology appropriate to the needs of its customers. Excel is known for acting as a responsible corporate citizen and is also known for recognizing the need to have sustainable and environmental friendly agricultural processes. The research processes at Excel has helped minimize some of the effects of chemical fertilizers and insecticides in farms. The company's initiatives in the field of Integrated Crop Management Systems (ICM), Integrated Pest Management Systems (IPM), Good Agricultural practices (GAP), Total Water Management and Drip Irrigation have been well known in the field of agribusiness. The company has also been trying to harness the power of leading technologies in the field of agricultural biotechnology for the betterment of farmers. The company was also supported by the other businesses of the group company Excel Industries Ltd (Narula *et al*., 2008b).

History: Excel Crop Care was formed after the crop protection of Excel Industry was hived off to form Excel Crop Care. The erstwhile Excel Industries Limited started off in a kitchen laboratory in 1941 as a private limited company and became Public Ltd. Company in 1965. Earlier Excel Industries Ltd handled the pesticide business. Excel Industries was originally incorporated as a partnership firm in 1941 and became public in 1964. The pilot plant for the manufacture of Endosulfan was commissioned in 1976. A plant was put up for the manufacture of aluminum chloride in the same year. In 1978, the company concluded two more

agreements for supply of technical know-how and engineering services for the manufacture of malathion with FICOM Organics, Ltd. and Khatau Jhunker, Ltd. Another plant was installed to manufacture glyphosate, a weedicide was started in 1985. In 1986, the butene-diol plant with 600 TPA capacities was commissioned with an inbuilt facility for generation of acetylene gas. It was proposed to set up a 16,000 TPA plant for the recovery of high-alumina refractory grade cement from the company's phosphorous operations.

The Company entered into new business like micro-irrigation systems, seeds and biofertilizers through a combination of marketing and manufacturing efforts. The company also started offering technology in tackling the ever-mounting menace of waste in cities and town. The capacity of the plant to produce Butene Diol was expanded. The Company also undertook to further modernize its major plants to improve the operational performance. In 1995, The Company commissioned a windfarm project at Rajasthan with an installed capacity of 2.7 MW. In 1996-The Company had carried out expansion of production capacity of yellow phosphorous at Bhavnagar unit and Glyphosate at Roha unit. In 1997, The Company also commissioned a new pesticide formulation unit at Silvassa in the Union Territory of Dadra and Nagar Haveli to manufacture Glycel 41% SL and exports to add facilities in future to manufacture other formulations. The company held a major market share in Endosulfan and Glyphosate pesticides. It also developed expertise in organic soil enrichers, drip irrigation system and pest control products. In 1998-ISRAEL'S Netafim, a US$ 200m turnover micro irrigation company entered into a joint venture with Excel Industries Limited, the Mumbai-based manufacturer and exporter of agrochemicals and Jalbindu Agritech Pvt Ltd, an Umargaon-based manufacturer of drip irrigation systems. Excel Industries, pioneers in recycling wastes into fertilizers, planned to expand business worldwide particularly in Asia and the Pacific region. Excel commissioned a pilot plant for herbal extraction at its production site at Lote Parashuram and entered into a co-marketing arrangement with Danish multinational Cheminova for its Glyphosate-based formulation, a systemic weedicide.

Excel Crop Care became a frontrunner in providing environment-friendly solutions and a pioneer in bringing Integrated Crop management in the country as well. The company developed a process to convert city waste into bioorganic soil enricher called Celrich. In 2002, the company's agribusiness division was hived off into a separate arm in 2002 i.e. Excel Crop Care Ltd. Though this is the main company dealing in pesticides, but the integration of group activities, mainly the activities of Excel Industries Ltd. becomes important to study. The operations of Excel were organized into four divisions with agrochemicals division being the largest contributor to the sales revenue and profits of the company. Endosulfan, a broad-spectrum pesticide was the major revenue earner of the company.

Chemical business: The Chemical business begins from the extraction of Elemental Yellow Phosphorus moving to downstream phosphorus based compounds like Phosphorus Pentasulphide, Phosphorus Trichloride and DETC. Another field of activity in which the company is engaged in is Fine Chemicals, primarily products like Acetyl Chloride. It has developed certain chemical strengths, which has been put in good use in the area of agrochemicals. The company has the core of its strength is chemical knowledge and during the last two or three years, it has consciously put its chemical knowledge to good use by looking at the portfolio available in the various prospective market segments.

The company has been dealing in intermediates, in water treatment, soaps and detergents, lubricant additives, textiles, dyes and plastic additives, Mining chemicals and specialty chemicals. In the chemicals division also the company has been looking both at the domestic and the export markets through alliances. Contract manufacturing is one of the major activity, which the company is pursuing. In this division, the company is building strengths, which are already available within the company and is looking at new market segments, newer chemistry and widening its portfolio (Narula and Upadhyay, 2008b).

Environment and biotech: Excel developed biodynamic products and processes for dealing with environmental problems encompassing municipal solid waste, putrescible wastes from the agriculture, horticulture and aquaculture industries, sewage sludge, industrial waste streams and contamination of soils and waters by hydrocarbons and other organic compounds. Its activities include sanitization, bio-conversion, bio-remediation and bio-augmentation. This division has developed a process consisting of isolation of friendly microbes that convert city waste into bio-organic soil enricher called Celrich. . This technology is unique in that it solves two problems at the same time. One, it is solving the garbage management problem. And secondly, the product that comes out of the treatment of garbage is a value-added product.

The company is having unique technology through which it has provided to many others and also having its own plants. The company has established plants by providing assistance to municipal corporations like Puri, Mysore, Calicut and Trivendrum and provided technical know-how to local entrepreneurs who have set up plants in cities like Vijaywara, Ahmedabad, Calcutta and Delhi.

The company is also having a life sciences division. All these four group businesses had some kind of synergy with each other. While agrochemicals formed a major part of the business handled through a separate company, the company is not only agrochemicals-related, but it has other divisions also. And while the chemicals division makes agrochemical intermediates, it also makes other chemicals, which has nothing to do with agri business. Similarly, one of the products of the environmental division is agri input, but its major business is waste management.

Sales performance of Excel Crop Care: Excel was ranked among industry leaders with a turnover of Rs.3924.54 million. The sales showed around 13% increase in 2003-2004 and a further increase of 31% in 2004. The financial performance of the company has been presented, which show the positive trends in the turnover of the company. Profits were also increasing for the company. Performance of the company was encouraging in year 2003-04 due to better exports resulting from the initiatives taken for the development of export markets and widespread monsoon helping to sustain domestic sales. The company's net sales during the year 2003-2004 was Rs. 290.17 crores compared to Rs. 256.99 crores in the previous year registering a growth of 12.91%. Exports were at Rs. 96.32 crores grew by 42% as compared to Rs. 67.68 crores in the previous year. The sales turnover increased from 282.52 Rs. Crore to 316.91 in 2003-04 and to Rs. 415.48 crore. The profit also showed a phenomenal increase of two and half times (Annual Reports, 2002-05).

Product line offered by Excel: The Company manufactured only a few chemicals. As the multinationals made their entry into industry, Excel Industries was threatened as they had only a few mature products viz., insecticides catering to the needs of farmers. Other companies not only came with new proprietary molecules, but they also tried to strengthen their position in domestic market. Excel's flagship product Endosulfan was also under stakeholders' scrutiny as a few deaths were reported among the cashew nut farmers in Kerala. As a result of which the company followed many strategies to combat the environmental pressures related to the product. These strategies have been discussed as under.

The company was fully integrated as it manufactured technical pesticides, formulations and pesticide intermediates, which has been the largest contributor to the sales revenue and profits of the company. The technical pesticides contributed 42% to the sales revenues of the company. It was one of the largest producers of Endosulfan technical, a broad-spectrum pesticide in the country. Other major products contributing to the revenues of the company are Glyphosate, Chlorpyriphos, Zinc Phosphide and Aluminium Phosphide. The company is diversifying into fungicides and weedicides, whereas earlier it was only selling insecticides. It introduced some new products such as Profenophos including some outsourced ones. The company also added biopesticides to its product portfolio and has launched some products, which can be used in Integrated Pest Management and Integrated Crop Management practices (Narula and Upadhyay, 2008a; 2008b).

The company is among the world's leading manufacturer of Endosulfan, Glyphosate, Chlorpyriphos, Aluminium Phosphide and Zinc Phosphide. In 1994, Excel became the first Indian agrochemical company to be certified ISO 9002. Four of the major plants were ISO 9002 certified and two of the sites had ISO 14001 certification. The company had achieved over hundred product and process breakthroughs The quality consciousness of the company is not limited to the manufacturing. Each of the manufacturing locations had a well-equipped R and D facility where eco-friendly chemistries for crop care and effective formulations, technologies and recipes were explored (Table 7).

Product mix of Excel Crop Care: At that time, the company was having a few technical as well as formulated pesticides. It was manufacturing three insecticides, one herbicide and two fungicides. Some other products were only traded. But the company enjoyed a very good market share in some of its products such as Endosulfan and Glyphosate (Table 5).

Table 5: Share of different products in total turnover of Excel Crop Care Ltd

Product name	Share of product in total turnover of the company
Chloropyriphos 20 EC	5.73
Endosulfan 35 EC	50.05
Profenophos 50 EC	6.53
Sulphur 80 WP	2.30
Glyphosate 41 SL	8.37
Zinc Phosphide	20.10
Aluminium Phosphide	10.00

Source: Pesticide Association of India, 2005

Table 6: Countries where Excel Crop Care products are exported

AMERICA:	USA, Mexico, Haiti, Argentina, Chile
EUROPE:	Belgium, Bulgaria, Germany, France, UK, Spain, Italy, Netherlands, Greece
AFRICA:	Kenya, Zimbabwe, Sudan, Egypt, Ethiopia, Tanzania, Ivory Coast, South Africa, Djibouti
MIDDLE EAST:	Iran, Saudi Arabia, UAE, Oman, Cyprus, Turkey, Israel, Syria, YAR
ASIA PACIFIC:	Australia, New Zealand, Thailand, Myanmar, Malayasia, Philipines, Bangladesh, Hongkong, Singapore, Japan, South Korea, Taiwan, Nepal

Source: Company Website, 2005

Table 7: Capabilities of Excel Industries limited

- Safe handling and use in reactions
- Reactions of hazardous and toxic materials like Yellow Phosphorus, Hydrogen, Chlorine, Hydrogen sulphide, Calcium Carbide-Acetylene, Ethylene, Phosphine, Phosphorus trichloride, Phosphorus pentachloride, Phenol, Flammable solvents,
- Handling of toxic wastes through, reduction at source, chemical treatment, bio-reactors and incineration.
- Handling of city waste and converting into, an organic manure, which in addition to providing natural nutrients to plants, is also capable of improving soil Quality in terms of porosity and water retention.
- Handling of sewage water for treatment and recycling.
- Providing guidance on Integrated Pest Management and Integrated Crop management for optimal use of crop protection chemicals for better yield with less chemical residues. Integrated Crop Management (ICM), which combines Integrated Nutrition Management (INM) and Integrated Pest Management (IPM) together in a systematic manner, are demonstrated in Excel's Product Mix, Marketing Strategies and Field Extension work on a multi crop, nationwide level
- Ability to provide guidance on establishing ISO 9000, ISO 14001 and EHS systems.
- Ability to isolate and maintain various strains of microbes and Fungi.
- Using Tissue Culture Techniques for developing various species of fruits

In 2001-2002, the division launched three new formulations under the brand names Celron, Hexzol and Bipex and also strengthened its product range in the export market. New agri product registrations were obtained for domestic and international markets, thus expanding the portfolio of pesticides. Some products, which contributed maximum to its turnover such as Glyphosate, Endosulfan, Aluminium Phosphide were in mature stage. Endosulfan was getting negative publicity by some environmental groups. The company was not having any low dosage and problem specific product.

The Company was putting in concerted efforts to improve its packaging to compete, both in domestic and global markets, by developing and improving high-tech and user-friendly packaging. These efforts had also enabled it to automate packing lines in its various plants. Innovations in packaging were also being carried out to minimize the competition from spurious products.

Excel is one of the leading companies exporting to many nations across the world. Its technical actives as well as the bulk and branded formulations are presently registered and marketed in Asia-Pacific, South Asia, West Asia, Africa, Europe (West and East including CIS countries), Central and South America and the USA. Exports accounted for about 32% of the turnover in 2004-2005 (Table 6).

Strategic focus at Excel Crop Care: Integration had been an important part of the company's strategy after diversification. The company was a long-term integrated player as it is also in the manufacturing of raw material such as phosphorous and its compounds, pesticide intermediates, pesticide technicals and formulations. This is also a part of company's cost reduction strategy, which was desirable from any pesticide company in such type of environment The focus on formulations also enabled the company to effectively leverage its solid brand equity in the rural India. The backward integration enabled it to have a very competitive cost structure. Due to its low cost structure many MNC's sourced their requirements from Excel (Table 8).

DISCUSSION

Challenges before Excel Crop Care: With the given situation during 1995-2000, it was evident that the company had strengths such as huge installed capacities, backward integration and holds over domestic and export markets, whereas the future scenario could affect its sales and turnover in long term because of sole reliance on few products, very narrow product range. Though there were more opportunities lying in exports as well as in domestic markets, their realization amidst the competitive clutter with current set of capabilities was a challenge. The management was deeply thinking to harness these opportunities, but it seemed a challenging job with maturing products, competitive turbulency, increased regulatory concerns, incoming of new products and technologies. Hence, the company undertook some strategic decisions which helped it gain the leadership in the industry even today.

Excel Crop Care today: Today, with three manufacturing plants; over 1200 dedicated employees; a range of market-leading brands; a distribution network of 40000 dealers; a customer base running into millions; and a turnover exceeding Rs.3000 million and accumulated wisdom of six decades, Excel is the world leader in generic chemicals. Excel Crop Care's Technical Actives, bulk and branded formulations are presently registered and marketed in Asia Pacific,

Table 8: Financial statement of Excel Crop Care Ltd. (2005-2009)

(Rs. in millions)

Particulars	Mar 2009	Mar 2008	Mar 2007	Mar 2006	Mar 2005
No. of months	12.00	12.00	12.00	12.00	12 .00
+ Gross sales	7304.33	5660.18	4476.11	4214.51	4218.60
Less: Inter divisional transfers	0.00	0.00	0.00	0.00	0.00
Less: Sales returns	0.00	0.00	0.00	0.00	0.00
Less: Excise	453.33	463.21	353.89	363.19	341.39
Net sales	6851.00	5196.97	4122.22	3851.32	3877.21
Expenditure					
+ Increase/decrease in stock	-225.87	-90.24	-46.94	-3.10	-62.40
+ Raw materials consumed	4274.97	2846.39	2185.00	1981.78	2167.30
Power and fuel cost	139.13	99.59	98.02	112.54	108.13
Employee cost	432.23	328.90	283.60	301.02	256.72
Other manufacturing expenses	826.44	692.11	601.13	475.91	433.02
General and administration expenses	489.19	458.70	359.58	323.80	308.20
Selling and distribution expenses	116.62	346.48	250.12	185.92	161.46
Miscellaneous expenses	410.27	50.76	58.93	61.42	92.64
Less: Pre-operative expenses capitalized	0.00	0.00	0.00	0.00	0.00
Total expenditure	6462.98	4732.69	3789.43	3439.28	3465.07
Operating profit (Excl OI)	388.02	464.28	332.79	412.04	412.14
+ Other income	288.87	82.92	58.29	66.50	47.33
Operating profit	676.89	547.20	391.08	478.54	459.47
Interest	149.89	99.26	95.86	84.08	69.95
PBDT	527.00	447.93	295.22	394.46	389.53
Depreciation	80.96	71.57	63.69	53.46	47.59
Profit before taxation and exceptional items	446.04	376.37	231.53	341.00	341.94
Exceptional income/expenses	0.00	0.00	63.46	0.00	0.00
Profit before tax	446.04	376.37	294.99	341.00	341.94
+ Provision for tax	168.03	129.39	110.05	123.25	119.78
Profits after tax	278.00	246.98	184.94	217.75	222.16
+ Appropriations	372.04	308.42	266.44	292.89	279.91
Equity dividend (%)	100.00	100.00	75.00	75.00	75.00
Earnings per share	25.26	21.28	16.44	19.15	19.92
Book value	127.15	107.80	93.70	80.64	64.32

Source: www.indiainfoline.com

South Asia, West Asia, Africa, Europe (West and East including CIS countries) Central and South America and the USA. The exports presently account for about 25% of the turnover. Besides the necessary infrastructure at the plants, the company has a subsidiary in Antwerp, Belgium manned by professionals who perfectly understand the requirements and specialties of customers in that part of the world.

Excel Crop Care adopts an integrated approach to manufacturing and has built world-scale capacities to make technical actives and formulations. To ensure quality and continuity of supply, key raw materials are produced by the company itself or are sourced from associate companies. The company is among the world's leading manufacturers of Endosulfan, Glyphosate, Chlorpyriphos, Aluminium Phosphide. The main manufacturing plant at Bhavnagar is ISO 9002, ISO 14000 and OSHAS 18000 certified and meets statutory requirements on quality and safety. The more recent plants at Gajod and Silvassa are equipped with state-of-art machinery and are in the process of obtaining the ISO certification. Each of the manufacturing locations has a well-equipped R and D facility-which is Government of India approved-that's busy exploring newer eco-friendly chemistries for crop care and effective formulations technologies and recipes. The company has also diversified into seed business, biofertilizers and soil enricher and other products, it has not only sustained its business, but has increased its business multifold (Narula *et al*., 2008b).

CONCLUSION

The case study on Excel Crop care concludes how a domestic firm had to face challenges amidst changing technological, regulatory and market environment. It also demonstrates how the company successfully managed to stand up in the turbulent environment and even has grown stronger today as a result of its strategies.

Questions:

- Perform a SWOT analysis for Excel Crop care in light of the environmental situation during 1995-2000

- Discuss how the environmental factors could affect Excel Crop care during the said period?
- What were challenges faced by Excel Crop Care?
- What corporate, business and functional level strategies were pursued by the firm in Short term as well as long term to attain the present position?
- What are the present challenges before the company?

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