PROFILE OF THE AYURVEDIC MEDICINE MANUFACTURING UNITS

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CHAPTER IV

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A brief discussion on the system of Ayurveda and an analysis of Ayurvedic medicines have been made in Chapter III. This chapter deals with the profile of the Ayurvedic medicine manufacturing units, the Acts governing them in India and the problems which hinder their business activities. The chapter is divided into two sections. Section A gives the profile of the units and Section B analyses the important provisions of various Acts and the problems faced by the units.

SECTION-A
PROFILE OF THE UNITS

In the following pages, a brief description of Ayurvedic medicine manufacturing industry of India is given with special reference to the units of the State of Kerala. Under the first part of this section, an overview of the Ayurvedic medicine manufacturing units of India is given with reference to the major units. The second part of this section deals with the profile of the units in the study area.

MAJOR MANUFACTURING UNITS

In the following paragraphs, a brief discussion is attempted on the major manufacturing units of India, especially Kerala.
Arya Vaidya Sala

Arya Vaidya Sala, situated at Kottakkal in Malappuram District of Kerala State, is the world-renowned institution for Ayurvedic treatment. It is one of the pioneers in uplifting Ayurveda from decay consequent on the alien domination of India. The institution is founded by the late Vaidyaratnam P.S. Varier in the year 1902. P.S. Varier, an outstanding physician and a man of vision, devoted his life for the cause of alleviating human misery. In recognition of his services, the distinguished title of ‘Vaidyaratnam’ was conferred upon him by His Excellency the Viceroy and the Governor General of India in 1933.

Within a period of three decades of starting of Arya Vaidya Sala, P.S.Varier established a full-fledged manufacturing unit with branches in two major cities of Kerala. Being a great philanthropist, he also established a charitable hospital at Kottakkal to provide both Ayurvedic and Allopathic treatments free of cost to the poor. He started an Ayurveda college in the same town to provide better Ayurvedic education to students. As per his will, Arya Vaidya Sala was elevated to a charitable trust after his death in 1944. Mechanisation was carried out in the institution in the year 1950 and it now has two manufacturing units one at Kottakkal and the other at Kanjikode in Palakkad District of Kerala State. The units are fully equipped with modern machinery and modern methods of packaging and packing and utilise modern technical know-how for facilitating large scale production of Ayurvedic medicines for maintaining their superior quality. The institution maintains large herbal gardens of their own at different places to meet shortage of raw
materials needed for production. The Arya Vaidya Sala complex houses an eight acre plot of herbal garden where 600 identified species and an equal number of unidentified species of herbs are grown. The medicinal plants grown here are used for research purpose as well.

Quality is the hallmark in the production of over 500 items of medicines by Arya Vaidya Sala which consist of *arishtasavas, kashayas, gulikas, tailas, grithas, choornas, bhasmas, rasakriyas, lehas, etc.* The products are sold through nearly 1000 agencies. Arya Vaidya Sala has got over 15 branches. The medicines manufactured and marketed are highly popular not only in India but also abroad especially in places like the Middle East, the U.K., the U.S.A., Germany, Malaysia and Singapore. The institution has agencies in the countries like Malaysia and Singapore.

Initially, patients came from the neighbouring States of Tamil Nadu, Andhra Pradesh and Karnataka. Since 1920, patients began to come from other States also. The facilities at Kottakkal include a dispensary, charitable hospital, nursing home, sales depot, an Ayurveda college and an R & D wing. Arya Vaidya Sala relies more on word of mouth publicity rather than modern commercial promotional tools.

In the Ayurvedic hospital and research centre, almost all diseases that come under the purview of *Kayachikitsa* are treated. Problems related to rheumatoid arthritis, paralysis, nervous disorder, backache, liver and digestive complaints, etc. are treated at Kottakkal. Some of the special treatments offered at Arya Vaidya Sala are *Dhara, Pizhichil, Nawarakkizhi, Sirovasty, Sirolepa, Kashayavasty, Snehavasty, Snehaelepanam, Nasyam, etc.*
Panchakarma treatments are also offered especially to patients who come from all parts of the world seeking expert medical advice and treatment in Ayurveda.

**Dabur India Limited**

Founded in 1884, Dabur India Limited has obtained ISO 9002 certification. It manufactures health care products, personal care products and Ayurvedic and veterinary specialities. The company has manufacturing units in the States of Uttar Pradesh, West Bengal, Bihar, Himachal Pradesh, Rajasthan and Madhya Pradesh besides units in Nepal and Egypt.

The total sales turnover of Dabur exceeds Rs.1,000 Crores. The company is well-known for its product, *Dabur Chwanprash*. Personal care products include hair oil (*Dabur Amla Kesh Thail, Vatika Hair Oil*), *Dabur Lal Dant Manjan* and *Dabur Honey*. Pharmaceutical products of the company include *Livfit, Honitus, Ulgel*, etc. The Company also manufactures some food items such as *Real Juices* and *Homemade Cooking Pastes*. The exports of the company is nearly Rs. 20 crores.

**Zandu Pharmaceutical Works Limited**

Located at Mumbai, Zandu Pharmaceutical Works Limited has been perceived as an Over The Counter (OTC) products company, the products of which can be sold even through provision stores. It markets its products through its sales depots and more than five lakhs retail sales outlets. It claims that it is the first company in the world to offer Ayurvedic treatments for Parkinson’s disease. The company is well-known for its *Chyawanprash* and balm. Though the company manufactures and markets 190 products, 80 per cent of the sales turnover is generated by 30 products.
The Arya Vaidya Pharmacy (Coimbatore) Limited

Popularly known as AVP, the Arya Vaidya Pharmacy (Coimbatore) Limited has its head office at Coimbatore in the State of Tamil Nadu. It was established in the year 1943 for the production and marketing of around 450 traditional Ayurvedic medicines.

The Ayurvedic trust under the institution, known as its arm, manages a hundred bedded hospital in which special treatment is given for arthritis, spondylosis, paralysis, urological problems, migraine, gynaecological problems, skin diseases, etc. The trust in collaboration with WHO and ICMR had conducted a research programme from the year 1977 to the year 1984 to establish the efficacy of Ayurvedic medicines and treatments on problems related to rheumatoid arthritis.

HEAL, an associate company of AVP was founded to market 15 OTC products through select outlets all over India. AVP Marketing and Exports Limited, subsidiary company of AVP was set up to market OTC Ayurvedic products all over the world. It markets select Ayurvedic products of other companies also.

Himalaya Drug Company

Located at Bangalore, Himalaya Drug Company is one of the few companies in India which undertakes extensive research programmes for the development of P & P medicines in Ayurveda. This manufacturer has over forty qualified scientists and doctors who are constantly engaged in the research work of new P & P medicines.
Himalaya Drug Company manufactures around 25 products and 13 related products. The best selling product Liv. 52, accounted for 37.5 per cent of the total sales turnover in the year 1998-'99. It had a market share of 48 per cent in the hepatic (liver) protective segment. Bonisan, the second largest selling brand, had a 50 per cent market share in its segment in 1998-'99. The other famous products of the manufacturer are Cystone, a urinary tract infection drug and Gasex, the digestive corrective for adults.¹

Shree Baidyanath Ayurved Bhawan Limited

Located at Calcutta, Shree Bhaidyanath Ayurved Bhawan Limited is popularly known as Baidhyanath. The company manufactures around 700 products at 10 manufacturing units. The products are marketed through 3500 exclusive showrooms managed by qualified medical practitioners and 1000 distributors. Baidhyanath has a market share of 20 per cent of the Chwanprash market. It manages Ayurvedic hospitals and two schools and publishes a monthly magazine Sachitra Ayurved.

Indian Medical Practitioners Co-Operative Pharmacy & Stores Limited (IMCOPS)

IMCOPS was established in 1944 at Chennai. It is engaged in the manufacturing of Ayurvedic, Siddha and Unani medicines. It has a manufacturing unit in Guntur and 14 sales depots all over the Southern region of India.

Vaidyaratnam Oushadhasala

The Eledath Thaikkatt family of Thaikkattussery in Thrissur District of Kerala State has a reputation as the most brilliant among the handful of Ashtavaidya families in Kerala. It was Neelakandan Mooss of the family who founded the Vaidyaratnam Oushadhasala in 1941. The Ayurvedic medicines were manufactured in the pharmacy of the oushadhasala under his close supervision. He planned of how the principles or Allopathy and Ayurveda could complement each other to reap a better advantage.

It was his son E.T. Narayanan Mooss who paved the way for the modernisation of the unit in 1954. Under his leadership, the organisation grew on to become one of the largest manufactures of Ayurvedic medicines in Kerala. The institution soon became famous for quality medicines. In 1995, the manufacturing process was modernised partly. To meet the growing demand for medicines, the second unit had already begun its production in 1990 at Chuvannakunnu in the district. The oushadhasala now has almost 15 branches in important cities in India and nearly 500 agencies to market the medicines including one at Dubai. An R & D lab functions as an integral part of the oushadhasala which assures quality medicines to the public.

The 27 bedded nursing home opened in the premises of the manufacturer attracts patients even from far-flung places in India and from abroad. An Ayurveda college started in 1976 contributes 30 qualified doctors every year.
Kerala Ayurveda Pharmacy Limited

Popularly known as KAPL, Kerala Ayurveda Pharmacy Limited was established at Aluva in Kerala in 1945. KAPL is one of the first Ayurvedic medicine manufacturers in India to obtain GMP certification. Founded by the late K.G.K. Panicker, the company manufactures more than two hundred classical medicines and nearly a dozen P & P medicines for treating chronic diseases. It has a hi-tech R & D department approved by the Department of Science and Technology of Government of India.

The company operates a number of Ayurclinics and Ayurclinic hospitals and several franchise clinics. The Ayurclinics provide expert treatments for osteoarthritis, ulcer, sinusitis, skin diseases, etc. and services like Panchakarma, Pizhichil and rejuvenation therapy. KAPL is a major exporter of Ayurvedic medicines. It publishes a journal viz., KAPL News.

Oushadhi

Oushadhi, originally founded as a co-operative society in 1939, was converted as a Government of Kerala undertaking in 1975. It is the popular name given for The Pharmaceutical Corporation (Indian Medicines) Kerala Limited. Located at Thrissur in the State of Kerala, the company was in a position to commission its modern plant in the year 1991. Being a government company, its products have great demand. Most of the products are manufactured on the basis of classical texts of Ayurveda. Oushadhi has one branch at Thiruvananthapuram, the capital city of Kerala and nearly 250 branches in and outside the State.
Nagarjuna Herbal Concentrates Limited

Started in 1989 as a small scale industrial unit near Thodupuzha in Idukki District of Kerala State, Nagarjuna Herbal Concentrates Limited became a widely accepted name for Ayurvedic medicines. The goodwill of the company could be enhanced of within a short period due to the special marketing techniques applied by the institution. Nagarjuna's product range includes over 250 medicines. It has a hospital located at Thodupuzha where special treatments are carried out. It established Ayurvedic hospitals and clinics in other parts of the State as well.

The company conducts continuous research in its modern R & D and laboratory. It makes every possible attempt to propagate the cultivation of medicinal plants. At present, it has more than 750 agencies and over 500 stockists in the States of Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, Gujarat and Maharashtra.

Sitaram Ayurveda Pharmacy Limited

Started as a sole trader form of organisation in the name Sitaram Anglo Ayurvedic Pharmacy in the year 1921, Sitaram Ayurveda Pharmacy Limited is a company located at Thrissur in Kerala and run by a group of eminent doctors. The unit commenced its operations under the instruction of His Highness Ramavarma Thampuran of erstwhile Cochin State. The promoters of the company claim that the manufacturing process is carried out within the factory by following the guidelines stipulated by the WHO to produce quality herbal medicines. The factory is equipped with a modern laboratory having two
sections, viz., the quality control section and the R & D section. Raw materials approved by the quality control section only are permitted to be used in the production of Ayurvedic medicines. The R & D section is continuously functioning with a view to improving processing of medicines and developing new products. With a distribution network of 150 agencies, the company manufactures and markets around 500 medicines including P & P medicines.

**Pankaja Kasthuri Herbals India Limited**

Originally established as Dhanwantari Ayurvedics in 1988, the company accepted the present name when it was converted to a public company in the year 1996 and the development of a new product viz., *Pankaja Kasthuri*. Located at Poovachal in Thiruvananthapuram District of Kerala State, the company bagged a number of awards for the quality of the products manufactured by it. It is learnt that the company became famous due to the marketing strategy applied for *Pankaja Kasthuri*. It received the Best Rural Entrepreneurial Award from the National Integration Society of India, best herbal medicine award for *Pankaja Kasthuri* from Kerala State Consumer Protection Centre, best herbal soap in Kerala from Kerala Upabhokthru Vedi for *Kasthuri Herbal Soap* and Jeevan Raskha Award from Human Aids and Cancer Control Society of India.

**Asoka Pharmaceuticals**

Asoka Pharmaceuticals is one of the leading and biggest manufacturers of Ayurvedic medicines in the northern region of Kerala. Established in the year 1915 by the late M.K. Kunhiraman Vaidyar at Kannur, the organisation
now manufactures 400 generic products and over 40 P & P medicines. The size of the manufacturer was increased to a considerable extent with the establishment of a modern unit in the year 1988.

Deseeya Ayurvedic Pharmacy

Founded in 1946 and located at Poonoor in Kozhikode District of the State of Kerala, Deseeya Ayurvedic Pharmacy manufactures more than 400 traditional medicines and nearly 20 P & P products. It is one of the leading manufacturers of Ayurvedic medicines with two branches and 300 agencies in different parts of Kerala and neighbouring States. A well-equipped R & D wing of the institution ensures the quality of raw material used for production and the standards of different stages of the manufacturing process. The treatment centre of the institution offers authentic Ayurvedic treatments like Abhyangam, Pizhichil, Sirodhara, Patra Potala Sweda, Sirovasthy and Pinda Sweda. It also provides Panchakarma treatment comprising five special therapies.

Jaya Bharatham Arya Vaidya Sala

Jaya Bharatham Arya Vaidya Sala is founded by the late Thomas Vaidyan fifty years ago at Punalur in Kerala. The unit manufactures around 300 medicines which are distributed through five branches and nearly 250 agencies all over India. The vaidya sala also manufactures a number of P & P medicines.
S.D. Pharmacy

Vaidyakalanidhi P.S. Kesavan Vaidyan founded this Ayurvedic medicine manufacturing unit at Alappuzha in Kerala in the year 1939. The unit today makes use of some sophisticated and modern equipments for the manufacturing process such as electrical heating systems. It s the pioneer in the introduction of tableted version of some medicines. Most of the products relate to the classical category. The distribution network of the manufacturer consists of nearly 25 branches, 200 agencies and 1000 stockists.

Rajah Healthy Acres

Spread over a vast land of 148 acres, Rajah Healthy Acres is an Ayurvedic Hospital and rejuvenation centre situated at Koottanad in Palakkad District of Kerala. Founded by Mr. Abdurahiman, the centre has 100 bedded hospital and 15 cottages with treatment rooms. The centre provides treatments for ailments and rejuvenation therapies. Diseases usually treated are rheumatism, arthritis, anxiety, allergic asthma, skin disease, back pain, gynaecological problems, diabetes, migraine, eye diseases, piles, disorders of digestion and chronic cough.

General treatments of Rajah Healthy Acres include Mannupothichil (mud scan) and Manal Nirakkal (sand filling) alongwith usual methods such as
Uzhichil, Pizhichil, etc. Mannupothichil involves a special method of diagnosis of diseases. The patient’s body is covered with the paste of a special mud and herbal extracts and made to sit in the sunlight for one hour. Then, a mineral bath is given. By observing the colour changes on the skin, it is capable of diagnosing the disease. In Manal Nirakkal, the patient is kept in a box filled with pure sand. Water is poured into the box to make it tight. This procedure helps to increase the breathing capacity of the patient which, in turn, reduces obesity.

Having given a brief account of the major units in India, the profile of the units of the study area is discussed in the coming paragraphs.

PROFILE OF THE UNITS IN THE STUDY AREA

The sample selected from the study area consists of 66 Ayurvedic medicine manufacturing units. In these units, 7 units (i.e., 11 per cent) belong to the large scale category, 22 units (i.e., 33 per cent) are medium sized units and 37 units (i.e. 56 per cent) relate to the small sized category. District-wise classification shows that 41 units (i.e., 62 per cent) are from Thrissur District, 12 units (i.e., 18 per cent) from Malappuram District, 11 units (i.e., 17 per cent) from Kozhikode district and 2 units (i.e., 3 per cent) from Kasargode District. Figure 4.1 will explain the classification of the units.
Figure 4.1
Distribution of Sample Units

Size-wise Distribution of Sample Units

District-wise Distribution of Sample Units
130 agencies are included in the sample. These belong to 9 manufacturing units which only have agencies out of the 66 sample units. The 9 manufacturing units are Vaidyaratnam Oushadhasala, Thaikkattussery (VDR), Sitaram Ayurveda Pharmacy Limited, Thrissur (STR), The Pharmaceutical Corporation (IM) Kerala Limited, Thrissur (OUS), S.N.A. Vaidyasala, Thrissur (SNA), Arya Vaidya Sala, Kottakkal (AVS), Mangalodayam Vaidyasala, Changaramkulam (MGL), Viswakeerthy Ayurvedic Pharmacy Private Limited, Kanhippura (VSK), Kerala Ayurvedic Co-operative Society Limited, Meenchanda (KAC) and Deseeya Ayurvedic Pharmacy, Poonoor (DSY). The number of consumers taken as sample is 650.

In the following paragraphs, profile of the 66 units, 130 agencies and 650 consumers are analysed to throw light into the general information related to them.

GENERAL INFORMATION ABOUT THE UNITS

Year of Commencement of Business

Year of commencement of business of the Ayurvedic medicine manufacturing units would reveal the growth of the industry in terms of number of units. Table 4.1 indicates that the least number of units started their business between 1901 and 1920. The percentage of the units which started their business during this period is 3. The percentage of the number of units
Table 4.1

Year of Commencement of Business

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Units (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901-1920</td>
<td>3</td>
</tr>
<tr>
<td>1921-1940</td>
<td>12</td>
</tr>
<tr>
<td>1941-1960</td>
<td>18</td>
</tr>
<tr>
<td>1961-1980</td>
<td>40</td>
</tr>
<tr>
<td>1981-2000</td>
<td>27</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Survey data*

which commenced operations during the periods 1921-1940, 1941-1960, 1961-1980 and 1981-2000 are 12, 18, 40 and 27 respectively. During the period 1961-1980, the largest number of units (i.e., 40 per cent) started their operations. It is more than double the number of units started during the period 1941-1960. The number of units is reduced to nearly two-third during 1981-2000 when compared to the next previous period.

The year of commencement of business when plotted on a graph would give a clear picture of the growth of the units in terms of units started. The graph is displayed as Figure 4.2.
Figure 4.2
Growth in Terms of Number of Units Started (1901-2000)
Locality

In selecting the locality of a business, a promoter who is conscious of the importance of market study will certainly give weightage to various factors such as availability of raw materials, cheap and quality labour, transporation and marketability of finished products.

Table 4.2 shows that in all the four districts of Thrissur, Malappuram, Kozhikode and Kasargode, 50 to 68 per cent of the promoters set up business in panchayats. There is significant difference between the districts in the option of business place in a municipality (It ranged between 7 and 50 per cent). Each of the districts of Thrissur and Kozhikode has one corporation. There is no considerable difference in the percentage of number of units in the corporations. The percentages of numbers are 22 and 27 for Thrissur and Kozhikode Districts respectively.

Table 4.2
Distribution Showing Locality

<table>
<thead>
<tr>
<th>District</th>
<th>Panchayat</th>
<th>Municipality</th>
<th>Township</th>
<th>Corporation</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSR</td>
<td>68</td>
<td>7</td>
<td>3</td>
<td>22</td>
<td>100</td>
</tr>
<tr>
<td>MPM</td>
<td>67</td>
<td>33</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>KKD</td>
<td>55</td>
<td>18</td>
<td>0</td>
<td>27</td>
<td>100</td>
</tr>
<tr>
<td>KGD</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td><strong>Column Total</strong></td>
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<td><strong>15</strong></td>
<td><strong>2</strong></td>
<td><strong>18</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Survey data

Form of Organisation on Commencement

Table 4.3 reveals that 64 to 68 per cent of the units in all the districts except Kasargode are sole proprietorship organisations on commencement of business. The reasons attributable to this phenomenon can be lower capital,
Table 4.3
Form of Organisation on Commencement of Business

<table>
<thead>
<tr>
<th>District</th>
<th>Sole Trader</th>
<th>Partnership</th>
<th>Co-operative</th>
<th>Company</th>
<th>Public Enterprise</th>
<th>Charitable Trust</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSR</td>
<td>68</td>
<td>15</td>
<td>5</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>MPM</td>
<td>67</td>
<td>17</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>100</td>
</tr>
<tr>
<td>KKD</td>
<td>64</td>
<td>18</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>100</td>
</tr>
<tr>
<td>KGD</td>
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<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Column Total</td>
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<td>5</td>
<td>9</td>
<td>0</td>
<td>3</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey data
less risk, easy management, less mechanisation, etc. involved in the case of sole proprietorship form of organisation. Except for the units for Kasargode District, 15 to 18 per cent of the units are partnership firms. The highest percentage of co-operative societies, i.e., 9 per cent is in Kozhikode District whereas the highest portion of company form of organisation, i.e., 12 per cent, is in Thrissur District. No unit started its business in the form of public enterprise. Malappuram and Kozhikode Districts only had units in the form of charitable trusts, the percentage of this form of business to the total units in these districts being 8 and 9 per cent respectively.

Present Form of Business

By comparing the form of business on commencement and the present form of business, it is attempted whether a business expansion or contraction would be pointed out at a glance. Table 4.4 depicts the picture of the present form of business.
Table 4.4

Present Form of Organisation

<table>
<thead>
<tr>
<th>District</th>
<th>Sole Trader</th>
<th>Partnership</th>
<th>Co-operative</th>
<th>Company</th>
<th>Public Enterprise</th>
<th>Charitable Trust</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSR</td>
<td>41</td>
<td>36</td>
<td>3</td>
<td>17</td>
<td>3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>MPM</td>
<td>42</td>
<td>33</td>
<td>0</td>
<td>17</td>
<td>0</td>
<td>8</td>
<td>100</td>
</tr>
<tr>
<td>KKD</td>
<td>36</td>
<td>46</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>100</td>
</tr>
<tr>
<td>KGD</td>
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<td>50</td>
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<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Column Total</td>
<td>42</td>
<td>29</td>
<td>3</td>
<td>21</td>
<td>1</td>
<td>4</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey data
The present percentage of number of sole traders ranges from 36 to 50 per cent in the districts. On commencement of business, their numbers were between 64 and 68 per cent. 50 per cent of the units in Kasargode District are converted to sole proprietorship form from partnership form. The balance of 50 per cent which were partnership firms on commencement are converted to company forms of organisations. This can be the indication of business expansion and contraction at equal dimensions in the district. The percentage of number of partnership form of organisation increased from 15 per cent to 36 per cent in Thrissur District. It has increased from 17 per cent to 33 per cent in Malappuram District and 18 per cent to 46 per cent in Kozhikode District, i.e., increased to more than double in Thrissur and Kozhikode Districts and nearly double in Malappuram District. This can be a positive indication of business growth. The number of companies increased from 12 per cent to 17 per cent in Thrissur District. It increased from 8 per cent to 17 per cent in Malappuram District.

On commencement of business, no unit had begun its operations as a public enterprise. While looking into the present form, 3 per cent of all the units in Thrissur District are found to be public enterprises. The number of charitable trusts remained the same in all the districts.

It could be seen that 42 per cent of the units in all the districts are sole traders, 29 per cent partnership firms, 21 per cent company forms of organisations, 3 per cent co-operatives and the rest, i.e., 5 per cent public enterprises and charitable trusts. The present form of business of the units is picturised in Figure 4.3.
Figure 4.3
Present Form of Organisation of the Units

- Sole traders
- Partnership firms
- Companies
- Co-operatives
- Charitable trusts
- Public enterprises
Table 4.5 reveals the reasons for change in the form of business of the units after the commencement of their operations. Out of the total units, 73 per cent recorded no change in the form. Only 9 per cent of the units changed their form after commencement of their operations due to decline in business activities and dispute among the owners. The rest of the units, i.e., 18 per cent opined that they changed their form because of growth in business activities.

**Table 4.5**

**Reasons for Change in the Form of Business**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Reasons</th>
<th>Number of Units (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Growth in business activities</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Growth in business activities and seeking various benefits from government</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Growth in business activities and for income-tax reduction to the owners</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>Growth in business activities, seeking various benefits from government and for income-tax reduction to the owners</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Decline in business activities</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>Units with no change in the form</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Survey data*

Data related to the number of branches will give details related to the distribution facility of the medicines arranged by the manufacturer. Branches
are owned and operated by the manufacturers themselves. Table 4.6 gives a simple picture of the branches.

Table 4.6
Units with Branches

<table>
<thead>
<tr>
<th>Number of Branches</th>
<th>Number of Units (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>86</td>
</tr>
<tr>
<td>1-5</td>
<td>8</td>
</tr>
<tr>
<td>6-10</td>
<td>0</td>
</tr>
<tr>
<td>11-15</td>
<td>5</td>
</tr>
<tr>
<td>16-20</td>
<td>1</td>
</tr>
<tr>
<td>21 and above</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Survey data*

In the sample, 86 per cent of the units do not have any branch, remaining 8 per cent has number of branches ranging between 1 and 5 and 5 per cent with branches between 11 and 15. No manufacture has more than 20 branches.

**Distributors**

The distributor network (distribution by wholesalers) in the study area is better than the branch network. Only big organisations maintain branches. All the others depended on independent distributors which are cheaper and involves less risk. As can be seen from Table 4.7, 38 per cent of the units
Table 4.7

Distributor Network

<table>
<thead>
<tr>
<th>Number of Distributors</th>
<th>Number of Units (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>1-5</td>
<td>27</td>
</tr>
<tr>
<td>6-10</td>
<td>14</td>
</tr>
<tr>
<td>11-15</td>
<td>9</td>
</tr>
<tr>
<td>16-20</td>
<td>6</td>
</tr>
<tr>
<td>21 and above</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey data

does not have any independent distributor. Majority of the units i.e., 41 per cent has number of branches ranging between 1 and 10.

Agencies

Agency is the exclusive retail outlet owned and managed by an individual or a group of individuals under the direction of the principal, viz., the manufacturer of Ayurvedic drugs. The data related to agency network of the units reveal that 82 per cent of the units does not have any agency (Table 4.8). These units may be either having independent distributors or no distribution network at all. As low as 8 per cent of the units only have number of agencies exceeding 20.
Table 4.8
Agency Network

<table>
<thead>
<tr>
<th>Number of Agencies</th>
<th>Number of Units (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>82</td>
</tr>
<tr>
<td>1-5</td>
<td>3</td>
</tr>
<tr>
<td>6-10</td>
<td>3</td>
</tr>
<tr>
<td>11-15</td>
<td>2</td>
</tr>
<tr>
<td>16-20</td>
<td>2</td>
</tr>
<tr>
<td>21 and above</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey data

Medical Representatives

Table 4.9 lists down the Ayurvedic medicine manufacturing units which employ medical representatives. Unlike most of the Allopathy medicine manufacturing units which have a wide network of medical representatives,

Table 4.9
Network of Medical Representatives

<table>
<thead>
<tr>
<th>Number of Medical Representatives</th>
<th>Number of Units (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>61</td>
</tr>
<tr>
<td>1-5</td>
<td>20</td>
</tr>
<tr>
<td>6-10</td>
<td>18</td>
</tr>
<tr>
<td>11-15</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey data
61 per cent of the Ayurvedic medicines manufacturing units in the study area does not employ any medicinal representative and 38 per cent has maximum of 10 representatives only. This indicates that majority of the units is not interested to appoint them and the units, thus, do not get the opportunity to get a proper feedback of marketing information from the distributors and agencies. Unlike the medical representatives of the modern system of medicine (Allopathy system is widely accepted as the modern system), the representatives of the Ayurvedic medicines usually do not establish direct contact with the physicians, but with the distributors and agencies. Their duty is generally confined to order procurement and collection of dues.

**Occupation of the Chief Promoter**

If the chief promoter possesses relevant knowledge and skill in the theory and technical aspects of the medicines, that would be reflected in the quality of medicines manufactured. Table 4.10 reflects the position of the units in the study area in this regard.

Nearly half the number of the total units started their business with the chief promoter as *paramparya vaidyan*. Only 23 per cent of the units has their chief promoters with either a diploma or degree from a recognized Ayurveda college. A person who got a diploma or degree from an Ayurveda college is considered a qualified Ayurvedic doctor in modern times. A *paramparya vaidyan* is, sometimes, placed at a high esteem as he usually has in-depth knowledge in examining the quality of medicinal plants, the main raw material used in the production of Ayurvedic medicines. He exhibits greater skill in verifying the adequacy of the processing of medicines as well.
Table 4.10
Occupation of Chief Promoter

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number of Units (In Percentage)</th>
<th></th>
<th></th>
<th></th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L</td>
<td>M</td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paramparya Vaidyan</td>
<td>70</td>
<td>41</td>
<td>46</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Ayurvedic doctor</td>
<td>15</td>
<td>27</td>
<td>22</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>15</td>
<td>32</td>
<td>32</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td><strong>Column Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Note: Others include chief promoters with other occupations or with no specific occupation.

Source: Survey data

Educational Background of the Chief Promoter

Educational backward of the chief promoter can be an important factor determining the quality of management of the enterprise. Table 4.11 depicts the educational qualification of the chief promoters.

Table 4.11
Educational Background of Chief Promoter

<table>
<thead>
<tr>
<th>Size of the units</th>
<th>Number of Units (In Percentage)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>*A</td>
<td>*B</td>
<td>*C</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>8</td>
<td>0</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>12</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Column Total</strong></td>
<td>20</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

*A = No formal education
*B = Diploma/Degree in any subject and Paramparya Vaidyam
*C = DAM/BAMS/MD in Ayurveda

Source: Survey data
Chief promoters of 20 per cent of the units, belonging to medium and small sized categories, has no formal education. Those with formal education of either paramparya vaidyam or Ayurvedic doctor are as low as 9 per cent of the total number of units.

Managerial Consultancy Services

Non-requirement of managerial consultancy services by an organisation is an indication of either satisfaction in the present state of management or a state of being not inclined to improvement in management. The units in the study area in such a state are 39 per cent, 58 per cent, 45 per cent and 50 per cent of the total number of units in the districts of Thrissur, Malappuram, Kozhikode and Kasargode respectively as is evident from Appendix XIV. Nearly 45 per cent of the units in all the districts does not require managerial consultancy services. Only 1 per cent is very satisfied with the consultancy services they obtain. There are 35 per cent of the total units who are satisfied with the services and 20 per cent dissatisfied with the consultancy services they obtain.

Services from Government

Table 4.12 shows that 50 per cent of the units in the study area faces some problems in getting any service from the government. Obtaining services
from the State and Central Governments are very important these days as these services are being reduced year after year. On analysing the table, it is evident that 68 per cent of the medium sized units and nearly 60 per cent of the large units face problems in getting the services. Nearly 30 per cent of all the large sized units face the problem of undergoing too many formalities in getting the services. The same percentage of large sized units face the problem of delay in getting the services. Taking together all the units, it could be seen that these problems are the most severe ones.

**Category of Employees**

The number of employees earning daily wages is higher for small units as is evident from Table 4.13. Only 21 per cent of the employees of small units is employed on salary basis. It is advantageous for a unit to employ more persons on wage basis as the employers have the liberty to remove them from
Table 4.13

Category-wise Average Number of Employees

<table>
<thead>
<tr>
<th>Category of Employees</th>
<th>Average Number of Employees (In Percentage)</th>
<th>L</th>
<th>M</th>
<th>S</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earning salary</td>
<td></td>
<td>67</td>
<td>40</td>
<td>21</td>
<td>43</td>
</tr>
<tr>
<td>Earning daily wages</td>
<td></td>
<td>33</td>
<td>60</td>
<td>79</td>
<td>57</td>
</tr>
<tr>
<td><strong>Column Total</strong></td>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey data

rolls easily as most of them are appointed temporarily. Large units have only 33 per cent of the total employees on wage basis and cannot enjoy this advantage considerably.

**Basis of Payment of Wages**

As is displayed in Table 4.14, 98 per cent of employees of the units, irrespective of their size, are paid wages on time rate system.

Table 4.14

Payment of Wages

<table>
<thead>
<tr>
<th>System of Wage Payment</th>
<th>Average Number of Employees (In Percentage)</th>
<th>L</th>
<th>M</th>
<th>S</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piece rate</td>
<td></td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Time rate</td>
<td></td>
<td>98</td>
<td>98</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td><strong>Column Total</strong></td>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey data
The low proportion of application of piece rate system can be attributed to many reasons. One of the main reasons is the nature of production activities carried out in Ayurvedic drug manufacturing units. Until the final product is shaped, in the case of most of the medicines, segregation into components or parts is not possible and hence piece rate cannot be calculated accurately. Another reason is the availing of the services of the same employee for more than one job or process at the same time.

**Units With Wage-earners under Time Rate System Only**

The survey does not trace a manufacturing unit with wage-earners under piece rate system only. Table 4.15 indicates that more than 65 per cent of the units of any district appoints wage-earners under time rate system only.

<table>
<thead>
<tr>
<th>District</th>
<th>Number of Units (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSR</td>
<td>76</td>
</tr>
<tr>
<td>MLP</td>
<td>67</td>
</tr>
<tr>
<td>KKD</td>
<td>73</td>
</tr>
<tr>
<td>KGD</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>74</strong></td>
</tr>
</tbody>
</table>

*Source: Survey data*

This was due to the nature of production activities involved in the *vaidya salas*. All the units of Kasargode District, all the large units of Thrissur District and all the medium sized units of Malappuram District make appointments in this way.
GENERAL INFORMATION ABOUT THE AGENCIES

Agency of an Ayurvedic medicine manufacturer is the manufacturer's agent which is an independent business unit employed by the manufacturer to sell his medicines only. His remuneration is usually a certain percentage of commission on the price of the medicines sold by him. He is the connecting link between the manufacturer and the consumers.

General information about the agencies of the Ayurvedic medicine manufacturing units are examined in terms of form of business and frequency of visit by a qualified doctor.

Form of Business

The agencies are located in small and big towns and in crowded localities where people have easy accessibility to the shops. Table 4.16 exhibits the status of the ownership of the sample agencies. The agencies are

<table>
<thead>
<tr>
<th>Form of Business</th>
<th>Number of Agencies (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sole trader</td>
<td>82</td>
</tr>
<tr>
<td>Partnership firm</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey data

either sole traders or partnership firms. Majority of them (i.e., 82 per cent) is having sole proprietorship form and the rest (i.e., 18 per cent) are partnership firms.
Visit by a Qualified Doctor

Two most important factors which influence the marketability of medicines through an agency are the availability and capability of a qualified doctor who visits the agency for providing his services to the patients and the frequency of his visit. Table 4.17 reveals the frequency of visit by a qualified Ayurvedic doctor or Vaidyan in the agencies. There are nearly 10 per cent of the total agencies which does not get the services of a qualified doctor in the study area.

Table 4.17

<table>
<thead>
<tr>
<th>Number of Days’ Visit in a Week by a Qualified Doctor/Vaidyan</th>
<th>Number of Agencies (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>1-2</td>
<td>35</td>
</tr>
<tr>
<td>3-4</td>
<td>44</td>
</tr>
<tr>
<td>5-6</td>
<td>12</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Survey data*

There is no agency which is visited by an Ayurvedic doctor/Vaidyan on all the seven days of a week. Almost 45 per cent of the total agencies has 3 to 4 days’ visit by him.
Services of the Manufacturer's Doctor

Some manufacturers make available the service of their doctors in the agencies on request by the latter. In the opinion of the agencies, the consumers (i.e., the patients) prefer to get the services of the manufacturer's doctor to a doctor appointed by the agencies. Most agencies also opine that availing the services of manufacturer's doctor is less expensive as his salary is paid most of the time by the manufacturer and he is to be paid the incidental expenses only by the agencies.

It is observed that only 41 per cent of the agencies get the services of the manufacturer's doctor.

Remuneration of the Manufacturer's Doctor

Remuneration of the manufacturer's visiting doctor is not paid always by the manufacturer. Of the agencies which get the services of the manufacturer's doctor/Vaidyan, nearly 40 per cent gets his services free of cost, 15 per cent has to bear a part of the remuneration and the balance of 47 per cent has to pay the full remuneration from their pocket (Table 4.18).

<table>
<thead>
<tr>
<th>Paid by</th>
<th>Number of Agencies (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer</td>
<td>38</td>
</tr>
<tr>
<td>Agency</td>
<td>47</td>
</tr>
<tr>
<td>Partly by manufacturer and partly by the agency</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: Survey data*
Most of the agencies which bear the expenses themselves are planning either to reduce the number of days’ visit per week by the doctor or to carry on business without his services.

**GENERAL INFORMATION ABOUT THE CONSUMERS**

Most of the medicines manufactured under Ayurveda are strictly based on the procedures prescribed in the classical texts. It is described in most of the texts of Ayurvedic medicine that deviations from the principles and procedures prescribed in the authoritative texts, which are time-tested testimonials, would badly affect the efficacy of the medicines or the effectiveness of the services. Accordingly, the manufacturer or marketer of classical Ayurvedic products can aim at curing or preventing diseases only rather than satisfying other needs, wants, tastes, preferences, habits, etc. of the patients. It is possible to satisfy the needs, wants, etc. to some extent in the case of P & P medicines.

In the modern world, the marketer is capable of providing certain utilities to the patients such as place, time and possession utilities, but form utility cannot be provided fully. Although some marketers attempted to satisfy the ‘convenient to consume’ needs of the consumers, such as the introduction of *kashayas* and *arishtas* in tablet or capsule forms, the result has been negative in most cases as the patients doubt the efficacy of the medicines in the new form and most of them are reluctant to by them and prepared to switch over to other manufacturer’s products, manufacturers of the study area opined.
The data related to the consumers of the study area have been analysed by considering these points and much of the desires, preferences and attitudes of the consumers are not taken account of. General information about them are verified through the variables age, religion, locality, category of earner and annual income.

Age

Consumers of the study area who are of the age group 60 years or above are found to be the biggest market segment constituting 42 per cent of the sample consumers as is evident in Table 4.19.

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>Number of Consumers (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 18</td>
<td>11</td>
</tr>
<tr>
<td>18-25</td>
<td>12</td>
</tr>
<tr>
<td>25-40</td>
<td>15</td>
</tr>
<tr>
<td>40-60</td>
<td>20</td>
</tr>
<tr>
<td>60 and above</td>
<td>42</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Survey data*

The table shows that the percentage of number of consumers decreases as their age decreases. The consumers between the age of 40 and 60 are 20 per
cent of their total number. It indicates that the Ayurvedic medicine manufacturing units have to concentrate on satisfying the needs of consumers of middle age and old age if they propose to select market segments for marketing their products. The segments constituting the middle aged and old aged consumers are found to be 62 per cent of all the consumers.

Religion

Table 4.20 shows that 22 per cent of the Hindu population, 34 per cent of the Muslim population and 24 per cent of the Christian population accept the products of Arya Vaidya Sala. Another 24 per cent of the Christian population accept the products of Vaidyaratnam Oushadhasala. These are the highest figures for the consumers of the three religions. The next highest percentage of Hindu and Muslim consumers are for the products of the Pharmaceutical Corporation (IM) Kerala Limited. The respective percentages are 18 and 21.
Table 4.20

Religion of Consumers

<table>
<thead>
<tr>
<th>Religion</th>
<th>VDR</th>
<th>STR</th>
<th>OUS</th>
<th>SNA</th>
<th>AVS</th>
<th>MGL</th>
<th>VSK</th>
<th>KAC</th>
<th>DSY</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindu</td>
<td>15</td>
<td>9</td>
<td>18</td>
<td>9</td>
<td>22</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>9</td>
<td>100</td>
</tr>
<tr>
<td>Islam</td>
<td>13</td>
<td>14</td>
<td>21</td>
<td>4</td>
<td>34</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>100</td>
</tr>
<tr>
<td>Christianity</td>
<td>24</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>24</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey data
Locality

The geographical distribution of the consumers in the study area is assessed by grouping them into areas as panchayat, municipality, township and corporation. There are two corporations, viz., Kozhikode and Thrissur and one township, viz., Guruvayoor within the study area. Table 4.21 displays the data related to the consumers of the agencies located in these geographical areas.

Table 4.21
Locality of Consumers

<table>
<thead>
<tr>
<th>Locality</th>
<th>Number of Consumers (In Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panchayat</td>
<td>66</td>
</tr>
<tr>
<td>Municipality</td>
<td>23</td>
</tr>
<tr>
<td>Township</td>
<td>3</td>
</tr>
<tr>
<td>Corporation</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Survey data*

It can be seen that 66 per cent of the consumers are located in Panchayats, 23 per cent in municipalities, 3 per cent in the township and the rest i.e., 8 per cent in the corporation areas.

Category of Earner

The categories of earners to which the consumers belong have been salary earner, wage earner, agriculturist, businessman, professional and non-resident Indian. The highest number of consumers, as is depicted by Table 4.22, has been from the market segment ‘wage earner’ constituting 29 per cent of the total consumers. The lowest segment is ‘professional’ with only 9 per cent of the total consumers.
Table 4.22
Category of Earners

<table>
<thead>
<tr>
<th>Category of Salary Earner</th>
<th>VDR</th>
<th>STR</th>
<th>OUS</th>
<th>SNA</th>
<th>AVS</th>
<th>MGL</th>
<th>VSK</th>
<th>KAC</th>
<th>DSY</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary earner</td>
<td>19</td>
<td>12</td>
<td>24</td>
<td>16</td>
<td>16</td>
<td>7</td>
<td>13</td>
<td>18</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Wage earner</td>
<td>37</td>
<td>32</td>
<td>18</td>
<td>40</td>
<td>24</td>
<td>40</td>
<td>20</td>
<td>24</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>Agriculturist</td>
<td>12</td>
<td>38</td>
<td>13</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>37</td>
<td>22</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>Businessman</td>
<td>14</td>
<td>8</td>
<td>20</td>
<td>10</td>
<td>20</td>
<td>13</td>
<td>10</td>
<td>16</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>Professional</td>
<td>12</td>
<td>4</td>
<td>15</td>
<td>6</td>
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<td>Non-resident Indian</td>
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<td><strong>Column Total</strong></td>
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</tbody>
</table>

*Source: Survey data*
The highest number of ‘wage earners’ is for S.N.A. Vaidyasala and Mangalodayam Vaidyasala (40 per cent each) which are two of the smallest of all the nine manufacturers given in the table.

For all the manufacturers, the first four segments given in the table, viz., salary earner, wage earner, agriculturist and businessman constitute the maximum of 81 per cent of the total market. Hence, the manufacturers need only to satisfy the needs and wants of these consumers if they do not have the resources to focus on the needs and wants of the remaining category of consumers.

**Annual Income**

Table 4.23 exhibits the annual income of the consumers. The table shows that most of the consumers (i.e., 45 per cent) are in the income category Rs.10,000–Rs.50,000. The next highest percentage of consumers is 29 belonging to the income group Rs.50,000–Rs.1,00,000 and third place (i.e., 12 per cent) is occupied by the group Rs.1,00,000–Rs.5,00,000. This indicates that 95 per cent of the consumers belonging to the lower and middle income group, i.e., those earning between Rs.10,000 and Rs.5,00,000 can be the target segment for the Ayurvedic medicine manufacturers who have meagre resources.
<table>
<thead>
<tr>
<th>Income Group</th>
<th>Annual Income ('000 Rupees)</th>
<th>Number of Consumers (In Percentage)</th>
</tr>
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<tr>
<td></td>
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<td>VDR</td>
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<tr>
<td>Lower Income</td>
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<td></td>
<td>10-50</td>
<td>42</td>
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<tr>
<td>Middle Income</td>
<td>50-100</td>
<td>29</td>
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<tr>
<td></td>
<td>100-500</td>
<td>19</td>
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<tr>
<td>Higher Income</td>
<td>500 and above</td>
<td>8</td>
</tr>
<tr>
<td>Column Total</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: Survey data*
In the case of the five manufacturers Vaidyaratnam Oushadhasala, Sitaram Ayurveda Pharmacy Limited, Oushadhi, S.N.A. Vaidyasala and Arya Vaidya Sala, consumers earning below Rs.10,000 are not more than 10 per cent; in the case of others, the percentage is not more than 17. There are no consumers in the income group Rs.5,00,000 and above in the case of S.N.A. Vaidyasala, Mangalodayam Vaidyasala and Viswakeerthy. In the case of all except Arya Vaidya Sala, the percentage of consumers in this income group does not exceed 8. Arya Vaidya Sala has 14 per cent of all its consumers coming under this category.

Section A of the present chapter dealt with a brief account of the major Ayurvedic medicine manufacturing units in India and the profile of the units in the study area. The second section, viz., Section B verifies the important Acts governing the units in India and the problems faced by them.

SECTION-B
IMPORTANT ACTS AND PROBLEMS

In the following pages, a brief account of the important Acts applicable to the manufacture of Ayurvedic medicines and the important problems faced by the Ayurvedic medicine manufacturing units in India are dealt with.

IMPORTANT ACTS

Following are the important Acts applicable to the manufacture of Ayurvedic medicines in India:

1. The Drugs and Cosmetics Act, 1940.


5. The Poisons Act, 1919.


8. The Biological Bill.

1. **The Drugs and Cosmetics Act, 1940**

   The Act, enacted in 1940 and amended in 1983 and 1995, prohibits manufacture for sale, distribution or stock or exhibition for sale of any drug or cosmetics, which is not of standard quality or is misbranded, adulterated or spurious. It also prohibits the manufacture of a patent medicine which does not bear on the label of the medicine a list of ingredients. The Act prohibits the manufacture and sale of a cosmetic containing any ingredient making it unsafe for use and a drug the manufacture of which is prohibited under the Act. However, nothing related to this Section shall apply to *Vaidyas* and *Hakims* who manufacture Ayurvedic, Siddha or Unani drugs for the use of their own patients or manufacture drugs in small quantities for the purpose of test or analysis.

   The Drugs and Cosmetics Act empowers the Government of India to prohibit the manufacture, sale and distribution of drugs which may involve risk to human beings or animals or those drugs which do not have the therapeutic
value claimed. The Government is also empowered to make rules for the establishment of laboratories, prescribe the qualifications required for the analysts, the methods of tests or analysis, the conditions to be observed in packing and colours which may be used for the medicines and so on.

2. The Pharmacy Act, 1948

Passed in 1948, the Pharmacy Act was amended two times, one in 1959 and the other in 1976. Under the provisions of this Act, the Government of India constituted the Pharmacy Council of India. The pharmacy courses conducted in the country are subject to the approval of the Council under each State Government. A State Pharmacy Council has to be constituted which has the responsibility to maintain a register of pharmacists of the concerned State. The Central Council will make regulations as to the standard of education required for qualification as a pharmacist and prescribe the nature and period of study to be undergone by the pharmacists.

3. The Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954

This Act prohibits a person from advertising any drug which suggests that the drug can be used for the prevention of miscarriage or conception in women, the maintenance or improvement of the capacity of a person for sexual pleasure, the correction of menstrual disorder and the diagnosis, treatment or prevention of venereal diseases, etc. It also prohibits giving false information or claim regarding the true character of a drug.
4. **The Narcotic Drugs and Psychotropic Substances Rules Act, 1985**

This Act makes provisions for the control of operations relating to narcotic drugs and psychotropic substances. Psychotropic substance means, any substance, natural or synthetic or other material included in the list psychotropic substance under the Act. The Act provides for severe punishments for those who contravene its provisions.

5. **The Poisons Act, 1919**

The Poisons Act, 1919 restricts the importation, possession and sale of specified poisons mentioned under the Act. It provides for the collection of excise duty on medical and toilet preparations containing narcotics or narcotic drugs such as alcohol and opium. The list of Ayurvedic preparations which are capable of being consumed as alcohol beverages are specified in the Act.

6. **The Drugs (Price Control) Order, 1995**

The Drugs (Price Control) Order, 1995 replaces the earlier Order of 1987. It applies more to Allopathic medicines. The Government of India, under the Act, has the power to fix leader prices for the medicines. These leader prices shall operate as the ceiling sale prices for every manufacturer. The Government has the power to fix the manufacturer’s price, retail price and trade commission of certain formulations. Those who are found violating the provisions of the Order are prosecuted under the Order and the provisions of the Essential Commodities Act, 1955.
7. The Trade Marks Act, 1999

Under this Act, brands of any distinctive character and are not capable of distinguishing some goods or services of a manufacturer from another shall not be registered. Similarly, a brand mark shall not be registered if it deceives or confuses the public, contains any matter that hurts the religious feelings of any section of citizens, contains obscene matter or if its use is prohibited under the Emblems and Names (Prevention of Improper Use) Act, 1950.

8. The Biological Bill

Foreign biotechnology companies trying to harness India’s traditional medicinal systems must bear in mind the provisions of Biological Diversity Bill, 2000. The Bill stipulates that a country which wants to use the biological resources of another country should obtain the prior consent of the latter. It prohibits the transfer of Indian genetic material outside the country without the approval of Government of India. Biological resources include plants, animals, micro-organisms or parts thereof and their genetic material but do not include human genetic material.

Under the Biological Bill, a three-tier institutional mechanism operates, the first at the apex level, the second at the State levels and the third at local levels. The apex authority, viz., the National Bio-diversity Authority, should be contacted by all the foreign nationals, organisations or associations who are seeking to access any of India’s biological resources. Similarly, Indian nationals will have to intimate the Authority before tapping India’s biological
resources. Further, Indian nationals should obtain the prior permission of the Authority to transfer the results relating to research of any biological resource to foreigners. However, Indian Vaidyas and Hakims will be permitted free access to biological resources for use within the country.

The main objective behind the Biological Bill is to protect Indian herbal remedies from over-exploitation by Western countries. Instead of closing the doors on foreign bio-technology companies, the Government of India has come up with a profit-sharing mechanism to ensure that India benefits from the commercialisation of Indian herbal drugs.

**Licensing Procedure of the Manufacturers**

Ayurvedic medicine manufacturing units in India have to obtain prior licence to manufacture the medicines from the concerned State Drug Controlling Authority. All formulations, whether classical or P & P, have to be got cleared from the Authority before commencing commercial production. The application for the grant or renewal of a licence to manufacture for sale shall be made in Form 25-D of the Drugs and Cosmetics Act. A unit which intends to apply for a loan licence can do so in From 25-E to the authority. A loan licence is issued to a unit which does not have its own manufacturing facilities but intends to avail them from another unit which has these facilities.

Before any licence is granted under any of the above said occasions, the applicant shall comply with the following conditions:

i) The manufacture shall be carried out in such hygienic conditions as given in schedule T of Rule 157 under the Act.
ii) The manufacture shall be carried out under the direct supervision of technical staff containing at least one person who possesses (a) a degree or diploma in Ayurveda or Ayurvedic pharmacy conferred by a university or government or (b) a graduate in pharmacy, pharmaceutical chemistry, chemistry or botany of a university or government with experience of at least two years in the manufacture of Ayurvedic drugs or (c) a Vaidya registered in a State register of indigenous systems of medicine having an experience of at least four years in the manufacture of the drugs.

GMP Certification

As per the Gazette Notification No.GSR 561(E) dated 23rd June, 2000 of the Government of India, all the Ayurvedic, Siddha and Unani medicine manufacturers in India should obtain GMP certification within two years of the date of the Gazette. The certificate will be issued to those manufacturers who comply with the requirements of GMP as laid down in Schedule T of Rule 157 of the Drugs and Cosmetics Act, 1940. Those manufacturers, who have registered their names prior to the date of the Gazette, should obtain the certificate within two years from the date. Vaidyas of Ayurveda and Siddha and Hakims, who manufacture medicines for consumption by their patients only, are not required to take GMP certification. The certificate is issued for two years at a time in Form E-1 as per the provisions contained in Rule 157(b) of the Act.
The main objectives behind the requirements of GMP certification are the following:

i) To ensure the quality of raw materials used in production;

ii) to up-grade the standards and quality of production;

iii) to increase the acceptability of medicines manufactured; and

iv) to make it compulsory the documentation of all the procedures in different stages of production.

To obtain the certificate, the manufacturer, among other things, has to comply with the following requirements:

i) The development of appropriate infrastructure to control pollution;

ii) healthy atmosphere for production free from bacteria;

iii) provision of adequate space for carrying out production activities;

iv) availability of good and fresh drinking water for manufacturing the medicines;

v) availability of raw materials of good quality which are free from bacteria;

vi) printing of details related to batch/lot number, name of the medicine, date of its manufacture, ingredients contained in it, the name of the person who packed it, etc. on the container or wrapper of the medicines;
vii) ensuring quality of the medicines through the laboratory of the manufacturer and if necessary, seeking the assistance of government approved laboratories;

viii) facilities for testing the quality of the raw materials and the efficacy of the medicines manufactured;

ix) ensuring the standard of the laboratory;

x) research details related to P & P medicines;

xi) to see whether the medicines are properly packaged and labelled;

xii) appropriate atmosphere and adequate facilities for storing the manufactured medicines;

xiii) facilities to receive the medicines returned by the customers;

xiv) arrangements to record complaints of customers and the remedial measures to be taken;

xv) conditions for the employees of the organisation facilitating tension-free and satisfactory working;

xvi) provision of vaccination and health measures to keep the employees away from epidemics;

xvii) giving of first aid treatments in times of accidents and emergencies; and

xviii) keeping of research books such as Ayurvedic Pharmacopoeia of India (Part 1 & 2), Ayurvedic Formulary of India (Part 1 & 2) and Drugs and Cosmetics Act.
IMPORTANT PROBLEMS

Traditional Systems of Medicine (TSM) play an important role in the provision of health care in India. The experts in Ayurvedic Drug Manufacturers Association (ADMA) observed that only 30 per cent of the population in India is able to avail Allopathic medication; the rest rely on TSM. Hence, it is improper to call TSM as alternative systems of medicine as is generally opined by Allopathic practitioners.

The rural people in India want to meet physicians who can guide them properly and require cheaper medicines. Ayurveda can address these issues properly.

The awareness and popularity of Ayurveda are increasing enormously in countries other than India for the past one decade and half. The popularity is extensive because of the safe and special modalities of treatments adopted in Panchakarma. It is believed that there are about 3000 practitioners in Japan who are prescribing Ayurvedic medicines in their modern practice.

Developed countries are increasingly depending on Ayurvedic preparations. In countries like Germany, France, Belgium and Netherlands, Ayurvedic health care products and home remedies are very popular. To boost exports, Government of India has initiated steps to achieve export figure of Rs.3,000 crores by the year 2005 and Rs.10,000 crores by 2010 for Ayurvedic medicines. It has promised 100 per cent tax exemption for Research and

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Development (R & D) in Ayurveda. More and more Indian Allopathy medicine manufacturers like Nicholas Piramal and Gufic are launching Ayurvedic products in their Ayurvedic divisions.\(^5\)

In Europe, doctors widely prescribe government-approved natural medicines. But, the Americans are shortchanged by a lack of knowledge about natural remedies (which include Ayurveda) mainly because the medical establishment and Government rules discourage their use.\(^6\)

Since the liberalisation of Indian economy, though most of the Ayurvedic products are exported from India in the label ‘food supplements’, it has been just a pretext of law in the foreign market and the so called ‘food supplements’ had convinced of the therapeutic potential of Ayurveda.\(^7\)

More than a decade ago, the World Health Organisation (WHO) officially recognized the role of Indian Systems of Medicine (ISM) in health care delivery. This recognition has emerged out of the fact that the prevailing medical systems have their own limitations in solving health problems. India has nearly six and a half lakh practitioners in Ayurveda and other indigenous systems. The country has more than 140 colleges teaching these systems of medicine as well. But, these infrastructure facilities have miserably failed to produce what has been expected. The position is further worsened with only

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\(^7\) Iyer, Ananth. “Converting Ethical Preparations to OTC will Benefit These Products and Establish Their Brand Equity”, *Holistic Healing*, October, 1998, p.16.
around 3 per cent of the allocation of total health budget by the Government of India for Ayurveda.⁸

The Indian Ayurvedic industry is steadily becoming more and more export oriented, thanks to the late realisation of the importance of the medicines manufactured by this industry abroad. Exports to the Far East, Latin America and Canada in the last few years have multiplied. In 1997 alone, the industry exported Rs.285 crore worth of herbal products to the United States, Canada and the Fast East. The growing demand for Indian products speaks of their quality.⁹

It is estimated that the ISM industry in India is worth Rs.4,200 crores of trade. In this, Ayurveda alone accounts for nearly Rs.3,500 crores. But, a number of problems hamper the growth of Ayurvedic medicine manufacturing industry of India. The important problems are briefly discussed in the ensuing paragraphs.

**Raw Materials**

Ayurveda depends a lot on nature for its raw materials. The main raw material used in Ayurvedic medicines is herbs or medicinal plants. India, identified as one of the eight important global centres for plant diversity is immensely rich in medicinal and aromatic plants found in diverse ecosystems.¹⁰

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Only less than 10 per cent of the medicinal plants traded in India are cultivated; 90 per cent are collected from the wild in a destructive and unsustainable manner.\textsuperscript{11} As per the report of Exim Bank of India (March, 1997), the raw materials contribute to only about 10.5 per cent of the total turnover of Ayurvedic drug industry of Rs.23 billion in 1996-'97.\textsuperscript{12} Though over 800 plants are used in various traditional medical systems, only 105 plants have been identified after in-depth discussion among researchers in the drug industry.\textsuperscript{13}

An important factor affecting the quality of a medicinal herb is the time or season at which it is harvested. The leaves are usually gathered throughout the whole growing period. The top parts of the plants are collected with the flower-bearing stem just before or at the beginning of the flowering stage. Fruits and seeds are collected when they are mature. The harvested herbs have to be transported to the drying shed as quickly as possible. India ranks tenth among the plant rich nations of the world and fourth among the Asian countries.\textsuperscript{14}

Medicinal herbs are to be dried for usage for a long period. They can be dried either in the shade or artificially. A large quantity of herbs is dried artificially to avoid hay-like taste, but, the temperature of artificial drying shall not exceed 40°C.

\textsuperscript{11} Nambiar, Krishnan, V.P. "Improved Harvesting, Processing and Storage of Medicinal Plants Raw Drugs-Their Role in Conservation and Quality of Plant-Based Products", \textit{Aryavaidyan}, November, 2001-January, 2002, pp.76-77.
\textsuperscript{12} Gupta, A.K. "Depleting Himalayan Herbs", \textit{Holistic Healing}, April, 1999, p.35.
\textsuperscript{13} Thirunarayanan, T., Dr. "Indian Herbal Pharmacopoeia", \textit{Heritage Healing}, September, 2000, p.38.
\textsuperscript{14} Nambiar, Krishnan, V.P., Loc. Cit.
To preserve the quality for a pretty long period, the dried herbs should be stored in air tight containers in a dry dark place at a temperature not exceeding 18°c.\textsuperscript{15}

Ayurveda makes use of herbs as green herbs or in their processed form, viz., dried and powdered, decoction, juice, paste, extracts, tablet and capsule forms and so on. Herbs, if processed, lose their medicinal value to some extent only. Ideally, it would be proper to use the herbs fresh and whole.\textsuperscript{16}

Herbal preparations like extracts are defined in the German and the European Pharmacopoeia as follows: “Extracts are concentrated preparations of liquid, solid or intermediate consistency, usually obtained from dried vegetable or animal matter...... After extraction, unwanted matter is removed, if necessary”.

Blessed with numerous medicinal plant species, the Himalayas have been given high recognition in ISM. That is why the great Indian Ayurvedacharya Charaka has termed many Himalayan herbs as ‘\textit{divya oushadhi}’ meaning ‘divine medicines’.\textsuperscript{17}

Prof. M.S. Swaminathan, the celebrated author on agriculture, has stated that the region extending from Silent Valley to Wayanad District in the State of Kerala is rich with various medicinal plants.\textsuperscript{18} In a year, medicinal plants worth around Rs.30 crores are used in the State for the manufacture of Ayurvedic medicines.\textsuperscript{19}

\textsuperscript{15} Ibid., p.77.
\textsuperscript{17} Gupta, A.K. “Depleting Himalayan Herbs”, Holistic Healing, April, 1999, p.35.
\textsuperscript{18} News item appeared in the Oushadham (Malayalam), April, 2002, p.6.
\textsuperscript{19} Excerpts from the speech delivered by Dr. Vasudeva Sharma in a meeting organised by Ayurvedic Medicine Manufacturers Association on 16\textsuperscript{th} December, 1990 [See Ayurveda Chandrika (Malayalam), January, 1991.p.121].
Indiscriminate exploitation of medicinal plants for the manufacture of medicines is responsible for the scarcity of rare species. As a result, the manufacturers are forced to accept the types of herbs the plant collectors bring to them. To meet the excess demand from the manufacturers, some plant collectors and dealers resort to adulteration of the herbs and thereby undermining the quality of the drugs.\(^{20}\)

One of the major problems facing the plant-based medicine manufacturers is the availability, accessibility and quality of the medicinal plants and other natural materials used as raw materials. Till recently, there have been no organised effort to cultivate medicinal plants in India. Further, adequate analytical methodology has not been developed to ensure that the raw materials meet the required standards. There are real problems in setting standards for hundreds of plants. Problems related to variations in the quality of plants harvested from different geographical areas, time of harvesting and primary processing (cleaning, drying, etc.) are also to be addressed.

Ensuring the quality of medicinal plants used in Ayurvedic medicines goes beyond simple experience, visual and feeling based validation. More credible and effective chemical-biological methods to ensure consistent quality and freedom from contamination from living and non-living matter, pesticides and microbial materials need to be developed.\(^{21}\)

As the production of the Ayurvedic medicine manufacturing units increases, the availability of most of the raw materials go on decreasing. All


\(^{21}\) Nair, M.D., Dr. “Standardisation Imbroglio Affects Traditional Medicinal Products”, *Heritage Healing*, September, 2000, p.18.
the medicinal plants which are to be consumed for the production of the medicine of the same *yoga* cannot be procured at the same time. The manufacturing units, in such cases, are compelled to use substitutes for the manufacture of the medicines. When production is carried out in small scale, the scarcity of the materials is not so severe. The non-availability of the medicinal plants often leads to the increased probability of adulteration as well.  

Unscientific procurement of medicinal plants and depleting forest resources will adversely affect the availability of raw materials to the Ayurvedic medicine manufacturing units in the coming years.

Over-harvesting, loss of habitat, increasing urbanisation and shrinking forest base have resulted in significant decline in the volume of medicinal plants required for the manufacture of Ayurvedic medicines. The existing systems of harvesting, processing and storage of medicinal plants are totally unscientific leading to total devastation of certain medicinal species.  

In recent years, many of the Himalayan herbs termed as ‘divya oushadhi’ have been declared as endangered and threatened plants. Of the 56 plants banned from exporting by Government of India, a good number belongs to the State of Himachal Pradesh. So far the State Government scientists have not identified and estimated the natural plant wealth of the State.  

The non-availability of raw materials, particularly herbs, can pose a threat in the years to come due to unscientific felling of trees and plants and collection methods of herbs.

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*Yoga means, the healing prescriptions propounded by the rishis of ancient times.
23 Nambiar, Krishnan, V.P., Loc. Cit.
To meet the ever-growing demand for herbs, the manufacturers of Ayurvedic medicines often engage their collectors for unseasonal collection of herbs. The result is that drugs prepared from such plants are poor in quality and are unable to cure the diseases.\textsuperscript{25}

In addition to adulteration and substitution of herbs, several herbs have found application in many Allopathic drugs used in the treatment of cancer, blood pressure, heart diseases, diabetes, etc.\textsuperscript{26}

Today, most of the medicinal plants are cultivated by using fertilisers and pesticides for better yield and protection. Some of the residual toxins from these may be passed on to the Ayurvedic formulation.\textsuperscript{27}

The post-liberalisation and post-WTO era has seen several cases of bio-piracy by way of patenting the Indian medicinal plants.\textsuperscript{28} Western countries are fast-patenting the bio-wealth of India.\textsuperscript{29}

It is learnt that patency has been taken as intellectual property right (IPR) in the names of around 60 medicinal plants cultivated in India by some developed nations. The U.S.A, Japan and France are the important nations among them. IPR’s have been claimed on medicinal plants like \textit{phillanthus niruri}, \textit{zingiber officinale}, \textit{ricinus communis}, \textit{momordica charantia}, \textit{aloebarbadensis}, \textit{centela asiatica}, \textit{piper nigrum} and \textit{terminalia chebula}.\textsuperscript{30}

\textsuperscript{25} Gupta, A.K., Loc. Cit.
\textsuperscript{27} Venkateswaralu, M., Dr. “Indian Systems of Medicine-Regulatory Concerns”, \textit{Heritage Healing}, September, 2000, p.15.
\textsuperscript{29} Gupta, A.K., Loc. Cit.
\textsuperscript{30} Jyothilal, Dr. “Apakatam Kanathirikkaruthu”, \textit{The Deshabhimani} (Malayalam Daily), 7th January, 1999, p.4.
The Process Patency Bill was passed in the Indian Parliament in 1970 when Mrs. Indira Gandhi was the Prime Minister of the country. This provided legal protection to a manufacturer for a method of production of a product as its inventor, but, there was no legal bar for another person or manufacturer to use it by borrowing this technical know-how. By making India sign in the General Agreement for Tariff and Trade (GATT) on January 1, 1995 and its joining the World Trade Organisation (WTO), the developed nations, especially the Western countries, had been compelling the country to effect amendments in the Bill. Accordingly, the country was required to change this Bill so as to name it as Product Patency Bill. The Product Patency Bill makes provision for the inventor or manufacturer, who invented the new method, to use the right (IPR) as his own right only. In this way, some medicine manufacturers of developed nations like the U.S.A, Germany, France and Japan had already acquired the product patency for certain properties of some medicinal plants cultivated only in India. It is pointed out that these properties had already been explained in the classical texts of Ayurveda.31

Though herbs and herbal preparations in India were ranked with precious stones in the inventory of royal possessions, with the arrival of modern medicine, they have been facing the following problems:

i) Non-documentation of information on herbs in the proper manner;

ii) identification of correct species as described in vernacular names;

iii) confirmation about the effective part of the plant;

iv) non-publication of results of tests and research in reputed journals; and

v) successful practitioners who inherited valuable information from their fore-fathers are unwilling to make them public.32

With the objective of promoting mass cultivation of rare medicinal plants, the Coimbatore-based Centre for Indian Medical Heritage (CIMH), an NGO, had tied up with a few Ayurvedic medicine manufacturers in Kerala to buy back herbs cultivated in the households of the State. CIMH proposes to provide guidelines for cultivation and review of the growth of the herbs33.

Other Problems

It is unviable to manufacture all the preparations mentioned in the classical Ayurvedic texts by the manufacturers. The manufacturers are generally able to manufacture and market at the maximum of 56 classical preparations which are widely consumed. All the others are neglected.34

The classical texts prescribe prolonged heating and stirring over low fire in the case of *tailas* and *grithas*. The efficacy of these Ayurvedic preparations is doubted when steam heating is resorted to for large scale production.35

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Another case of worry is the issue of standardisation of Ayurvedic medicines. The processing of Ayurvedic drugs are also not standardised. The only guideline available is the Drugs and Cosmetics Act 1940.36

Lack of scientific evidence to prove the efficacy of medicines manufactured by Ayurvedic medicine manufacturing industry hampers the growth of the industry. The recent union budgets of India have mentioned the need for strengthening the infrastructure of the drug-testing laboratories for ensuring the efficacy and scientific validity of the medicines. The manufacturers of Ayurvedic medicines are not happy with this as the budgets do not mention about the allocation of funds for technology upgradation through import of equipments for ensuring good manufacturing practice (GMP). They have also demanded the status of agro-produces for medicinal plants, tax exemptions and roll back of excise duty on P & P medicines.37

In order to be competitive in the global market, it is essential that the requirements of GMP for Ayurvedic medicine manufacturing units are harmonized with that of international requirements.

One of the major criticisms levelled against Ayurvedic medicine manufacturers is the tall claims made by some of the manufacturers about their products. There should be a legislative control on the claims made by them on the labels, literature and advertisements.38

Ayurvedic medicines are multi-ingredient formulations. In multi-ingredient formulations, the manufacturer should establish that there are no incapacities, either physical, chemical or therapeutic between the ingredients. Such a practice is not prevalent in the case of Ayurvedic medicines.\(^{39}\)

Ayurvedic physicians often tend to prescribe modern medicines even in non-emergency situations. This is one of the reasons why Ayurvedic medicines are not so popular and Ayurveda has not progressed beyond a certain point.\(^{40}\)

One of the reasons why Ayurvedic practitioners shy away from prescribing Ayurvedic medicines is lack of knowledge about newly introduced P & P medicines. Almost all Ayurvedic medicine manufacturers do not have direct communication with the practitioners. The medicines are promoted and routed through the medical representatives, agents and/or distributors. There are no properly trained representatives also.\(^{41}\)

Most of the manufacturers are yet to establish that their products conform to the label claims.\(^{42}\) Though labelling requirements of Ayurvedic medicines are specified under existing legislations, the packages of most medicines really do not give any information such as precautions and ingredients. In certain cases, there are claims on the label which violate the provisions of the existing Acts. This may mislead patients and compel them for self-medication.

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\(^{39}\) Ibid., pp.15-16.


A report from the British House of Lords Committee on Science and Technology downgrades Ayurveda, claiming the system lacks any scientific basis.43

The study conducted by Centre for Development Studies, Thiruvananthapuram, Kerala in 1987 shows that as much as 72 per cent of Karalites depended on Allopathy system of medicine. The figure rose to 82 per cent in 1996. Ayurveda system came a poor second with only 11 per cent of the population opting for it.44

Meagre budget allocation to ISM also hampers the growth of Ayurvedic medicine manufacturing industry in India. Though the infrastructure available for ISM and modern medicine is almost similar, ISM receives only 1.34 per cent of the health budget whereas in the case of modern medicine, it is 33 per cent.45

Some manufacturers, to promote the sales of their products, camouflage their products as based on Ayurveda. Examples for such products are toilet soaps, fairness creams and tooth pastes. Some products, in the name of Ayurveda, without any legal restriction and aggressive advertisement, sell well these days. Such unhealthy practices will defame Ayurveda and foreigners may later on fear to come to India for Ayurvedic treatment.46

The banning by the Supreme Court of India of cross prescription of Ayurvedic medicines by Allopathy doctors has, in recent years, really affected

the sale of some well-known Ayurvedic products which were heavily prescribed by them.47

In the wake of the Supreme Court's decision to ban cross prescription of formulations of one system of medicines by the physicians of other systems, Ayurvedic medicine manufacturers of India like Himalaya, Charak, Zandu and Sree Baidyanath are envisaging plans to promote their sales further in Ayurvedic P & P products and certain pharmacopoeial preparations.48

Though India has a rich culture of medicines dominated by Ayurveda, the developed countries do not recognize Ayurveda as a system of medicine. Hence, the Ayurvedic medicine manufacturers of the country usually export most Ayurvedic products as herbal food supplements.49

ISM face major challenges especially on their scientific validity and standardisation. The biggest medical association in the United States of America, the American Academy of Family Physicians (AAFP) had adopted a resolution in San Francisco against alternative medicine manufacturers, making it mandatory to have scientific proof before making any claim of curing any ailment by their formulations. This is a major threat to the export of Ayurvedic medicines to the U.S.A from India.50

49 Gangadharan,G.G., Dr. “International Regulation and Barriers for Traditional Systems of Medicine with A Brief History of Evolutions of Regulations in India”, Oushadham (Malayalam), April, 2002, p.3.
A major threat to the healthy development of Ayurveda, its treatment methods and medicines is the plans contemplated by various State Governments of India to start short term courses in *Panchakarma* and *Ksharasutra* by various universities. As these two branches of Ayurveda are taught during the final year of the degree of B.A.M.S., they, if practised by others, may affect the efficacy of the treatments in Ayurveda.\(^{51}\)

GMP for Ayurveda, Siddha and Unani medicines have been notified in the Gazette Notification of India Extraordinary dated 23rd June, 2000 vide GSR No. 560-E. This is an important step envisaged by the Government of India to improve the standards of infrastructure and quality of raw materials and processing. The details of GMP have been given in Schedule-T of Rule 157 of the Drugs and Cosmetics Act, 1940. Though ensuring quality control of the medicines is one of the main objectives behind the requirement of GMP, little reference to the aspects of quality standards of final products has been made in the Schedule.

India is losing an estimated $10 billion a year in the international market from pilferage of Ayurvedic products and services. In the words of Mr.G.Varier of the Ayurvedic Company of Great Britain, there is a large scale theft of India’s intellectual property (IP) rights. Much of the Western herbal medicines and Chinese herbal remedies today rely heavily on Ayurveda. Western Governments do not listen to the pleas of the Ayurvedic practitioners and manufacturers of these countries. The attitude of the Indian Government is not different. The result is the surrender of India’s great fortune.\(^{52}\)

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Though Indian Patent Act passed by the Indian Parliament in December, 1998 excluded Ayurveda from its ambit, the WTO had issued an ultimatum to India to include Ayurveda in the Act. As a result of this demand, the Ayurvedic medicine manufacturers of India fear that India would lose its right to the U.S.A. almost all Ayurvedic combinations and the U.S.A., which is suspected to be behind the move, would claim that some elements of Ayurvedic medicines manufactured in India are patented by them.53

Section B of this chapter gave a brief description of the important Acts governing the Ayurvedic medicine manufacturing units and important problems faced by the units in India.

Having analysed the profile of the Ayurvedic medicine manufacturing units and problems faced by the units in India, an attempt is made in the next chapter to analyse the problems experienced by the units of the study area in addition to the problems analysed in this chapter.