

Problems of Industrialization Mysore -1914 -1918

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Abstract

During the First World War period, despite the best efforts by the Government of Mysore it was difficult to start and run many industries which required large -scale import of machineries. The First World War had broken the regular commercial traffic between Europe, the Mediterranean and India. On the one hand, the state escaped from the reckless floatation of companies that characterized the boom that followed the war, but some capital was invested in shares in outside companies. However as far as the investment in the new industries was concerned, capital was certainly shy in Mysore during the warperiod1. This situation continued even in the early twenties. Even during 1921-22, business conditions continued to be unfavorable throughout the year. Heavy losses were sustained by per-sons engaged in the business of piece-goods, timber, hides and skins and to a certain extent in food grains.

Introduction

Despite these un favorable conditions like lowering2 of prices for certain important items of business and the effect of depression, there was a healthy indication of industrial activity in the state. During the period, a large number of new industrial enterprises came into existence. The total amount of money actually spent on industries came up to Rs.25 lakhs3. Out of these twenty five lakhs, Rs.5 lakhs belonged to small enterprises of private individuals! If the total cost incurred either in the starting of new factories or the enlargement of the old factories, in the private sector alone was taken into consideration, a sum of nearly Rs.1.25 crores was spent on procuring new plants and construction of buildings4.

However, during the course of thafirst World War, there was difficulty in the procurement of certain essential machinery from Europe. For example Alfred chatterton, the Director of industries and commerce. Mysore had arranged for an experimental investigation at the Indian Institute of Science to determine the best method of extracting sandalwood oil and to collect the data necessary for the design of a factory to manufacture sandal wood oil on a commercial basis. The Director was able to propose the establishment of an experimental factory near the Indian institute of Science on the edge of the Sankey Tank. The initial cost was estimated to be Rs. One Lakh, although sanction was given for erecting the factory, it was impossible to get the plant and machinery from Europe. Intact orders

were placed in England and France, but nothing was received from either England or France. As a consequence it was decided to procure plant⁵ and machinery locally. A large steam boiler was purchased at the auction sale of the plant at the abandoned gold mine near Nanjangud.

The manufacture of copper stills was undertaken by Indian Aluminum company in Madras and a number of experimental machines for breaking up the wood were built in the workshops attached to the water supply division in Bangalore. The experimental sandalwood oil extraction factory with indigenous machinery began to make profit in the very first year of its inception. The experiments yielded a net profit of Rs.3341-6-3, Subsequently during 1916-17, the company yielded a profit of Rs.6.433-8-4. Subsequently, the sandalwood oil extraction industry began to flourish. When the plans and the estimates of the factory were submitted to the government, it was contemplated that the factory would turn out 2000 pounds per month subsequently, as a result of several improvements, the experimental factory began to produce 6000 pounds of sandalwood oil per month⁶.

In 1916 the sandalwood oil was sold at Rs.12-8-0 per pound -however in 1917 the price was increased to Rs.22 per pound in Bangalore and Rs.26 on delivery in London⁷. It was expected that by September 1917, the original capital outlay will have to be recouped from the profit on working and that the factory would yield much larger revenue than what was expected or projected. The factory had taken the services of two well-known scribes from the field of chemistry. Dr. Sudborough⁸ and Dr. Walson were the two scientists from the Indian institute of science, Bangalore. Sri. Ramanujyengar was credited with the erection of factory on modern lines. Sri Partha Sarathy. Venkataraghavan and Subramanyalyer were the other members who were associated with the factory. The government of Mysore had created an conditional 6 posts for chemists. According to Alfred Chatterton. Mysore state enjoyed immense advantages including the advantages accrued from the location of the Indian institute of Science in Bangalore. The scientific staff of the institute and the admirably equipped laboratories at their disposal were assets of immense value in the initiation of new industrial enterprises. The institute was intended for the benefit of the entire India but at the same time it was more advantages to the state of Mysore⁹. It was further stated that the technical officers of the government were in constant touch with the staff of the Indian institute of science and they were in a better position to utilize the technical know-how from the Institute.

The methods pursued in the sandalwood oil factory were novel so far as India was concerned¹⁰. Unforeseen difficulties had occurred in the beginning, but they could be surmounted.

Wood Distillation

Wood distillation was an important area where new experiments were attempted. According to Alfred Chatterton "the primitive methods of manufacturing charcoal must be superseded by the process of wood distillation, whereby not only was a larger percentage of charcoal obtained but all the valuable by-products which will form the basis of chemical industries were recovered¹¹. As early as 1913 itself, Alfred Chatterton had submitted lengthy report to the government. He again made suggestion that wood distillation should be used as a method of utilizing forest resources for fuel. As a result of these proposals a number of samples of wood for distillation were sent to the Indian institute of science for experimental investigation.

By 1916, detailed plans and estimates¹² for the establishment of wood distillation plant were submitted to the government of Mysore. Consequently an order was passed, which stated thus:- "the subject may be brought up again for consideration after six months or earlier, if the war was over". The matter was brought before the Mysore Economic Conference and later a proposal was submitted to the government for experimental plant to deal with 4000 tons of wood per annum. Although the conversion of acetate of lime for conversion into acetone was of national importance, nothing was done in this area, except preliminary discussions:-

“According to Chatterton, wood distillation was an essential preliminary to any proposal for utilizing the iron ores which it had been proved to exist in sufficient quantities and were of sufficiently good quantity for charcoal iron manufacture in the bababudan hills. Again, charcoal was necessary for the suction gas producer plants which had been already established in Mysore.

Earlier Attempt at Soap Manufacture

Soap manufacturing was one of the successful areas of Mysore’s industrialization¹³ However it is necessary to know the early years of turmoil in this area. It was started in 1915 under the supervision of Mr.Chakravarti. a Bengali who had gained technical knowledge from France.

After his resignation, one Mr.Mahamadi was appointed with effect from January 1916, with the technical collaboration with the Indian institute of science professionals¹⁴. A professor of applied chemistry from the Indian institute of science was specially responsible for the technical advice. As early as in October 1915.the government of Mysore had sanctioned the purchase of a soap plant to produce 5 tons of soap a week. An order was placed for the same purpose with Messrs. George Scott and sons in the month of November 1915, but the plant had not arrived on time. This was perhaps due to the prevailing war situation.

Later Dr.Sudborough of the Indian institute of science analysed a large number of commercial samples of the oil cakes available in many parts of South India. A detailed article on the results of these experiments was published in the Madras Mail¹⁵. According to these findings, some of the oil cakes contained considerable percentage of oil which could be utilized in the soap production. On the strength of these experiments, a small benzene extraction plant was purchased and put to use by the Indian Institute of science in order to find out whether it was commercially feasible to treat oil cakes by a solvent process of extraction.

Second Cotton Mill

It is interesting to know as to how Mysore city was selected for the establishment of a second cotton mill in the state. This was the story of the once prosperous and the present defunct K.R.Mills.

Before the establishment of the department of industries¹⁶ there was a committee called Industries and commerce committee which investigated the question of establishing a cotton mill either in Mysore or at Harihar. The conclusions arrived at were not very favourable and the matter was dropped. The industries and Commerce Secretary took up this issue again in October 1914. After through discussion and protracted correspondence it was found that Mysore was as ideal as Bangalore for the establishment of a cotton mill. It would be more appropriate when chardline between Mysore and Arasikere¹⁷ was opened. The Mysore state also had well developed handloom weaving factory in the early years of the 20th century. The total governmental expenditure on the handloom weaving amounted to Rs.10,925-11-1. This expenditure was distributed as follows¹⁸.

Rs. A.P.	
Loss on the working of the Factory	798-3-11
Cost of demonstration work	6115-15-7
Cost of experimental work	4011-7-1

Therefore, the expenditure on the most important indigenous industry in the state amounted to Rs.1,000/- a month. As far as the income from the sale of textiles manufactured there in and from the sale of looms and loom parts amounted to Rs.27,056-11-3, which was an increase of about Rs.1500/- on the transactions of the previous year¹⁹.

During this period the weaving²⁰ factory contained 34 looms and on an average 25 weavers worked everyday. The number of idle looms indicating the irregularity in attendance of the weavers.

Considerable progress had been made in the weaving of silk and gold lace sarees on jackquards but any extended development was impossible, owing to lack of machines for preparing silk for the looms.

The difficulty for expansion was primarily due to the difficulty in obtaining machinery from outside India. There was in fact a proposal for setting power looms from England for certain specific varieties of work. Unfortunately due to the prevailing war situation these machineries did not reach India.

Woolen rugs and blankets were produced from local wool spun at the Bangalore mills were carried to a conclusion which was very satisfactory. During the winter seasons there was great demand for these blankets and rugs. But the official woolen mills were engaged mainly for the requirements of the army during the war times. In the meanwhile there was also a proposal to establish a separate woolen factory in the middle of the kumbli weaving villages.

In order to make the weavers familiar with the looms, in 1915 itself. 348 new fly shuttle looms were fitted up by the demonstrators in the districts. Demonstration work was carried on in five districts and 38 villages. Two hundred and ninety one looms were manufactured and sold to weavers. Thus there was a serious attempt to provide new technical knowledge to the weavers and also to familiarise them with the new fly shuttle looms²².

During 1916 in addition to the elementary instructions given in the factory, weaving demonstrations were held in 27 villages and 428 fly shuttles were supplied to the weavers. Attempts were also made as experiments to produce²³ small power looms driven by electric motors to be worked by single or small-group artisans. Similarly the proposal for organizing a seasonal market for the disposal of the goods woven in the state under the improved methods of weaving was also taken up²⁴

Summing Up

Thus, it is clear that the early attempts of industrialization, first of all during the First World War time, had its own difficulties. Establishment of plant and machinery was not an easy task all the time. The war situation had created demands for indigenously manufactured items. But the expansion of some of these industries necessitated the import of plant and machinery which was not an easy task. The department of Industry and commerce and other related departments very often worked with great dedication. The training programme for the weavers was one such successful experiments.

Another important issue is the interaction between the Indian Institute of Science and the officials of the industry and commerce departments. The leading scientists were involved in serious experiments in order to provide correct scientific and technical advice to the state in its industrialization programme.

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