

Basic Policies For Industrialisation Process^(*) (TURKISH EXPERIENCE)

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BASIC POLICIES FOR INDUSTRIALISATION PROCESS

The subject of this article is related to the Basic Policies of industrialisation process. The subject is studied according to the following plan :

- I — Problem of Model Selection in Industrialisation,
- II — Industrialisation Process of Turkey,
- III — Mixed Economic System, and Comparison with Japan,
- IV — Basic Policies of Industrialisation Process of Turkish Experience,
- V — SUMMARY

I — Problem of Model Selection in Industrialisation.

Industrialisation is a process of economic development. Each nation in the world try to improve and accelerate her industrialisation process, and find her most appropriate method, ways and means for it.

Pattern of industrialisation depends on several factors, among them mainly : geographical structure and geopolitics of the country; historical evolution and conditions; level of technological developments of

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neighbour and competitor countries and of the world ; potential economic capacity of the country.

The pattern of industrialisation are based on the solutions of the following problems : The speed of industrialisation ; the financial sources of industrialisation ; priorities for economic and industrial sectors ; the potential capacity and educational level of enterpreneurial managers, skilled workers and total labor-force.

Although the patterns of industrialisation have different shapes, model and process, they can be classified under certain general categories :

- a) Industrialisation by dynastic elite and big families ;
- b) Industrialisation by middle - class (by managers, through stock-companies) ;
- c) Industrialisation by national leaders ;
- d) Industrialisation by revolutionary and doctrinary intellectuals.

We can give the following examples for each pattern :

Examples for the first pattern are : W. Germany, Japan, Iran, Saudi Arabia, Morocco, Quwait, Qatar, Jordan, Bahrein, Amirates ;

Examples of the second pattern, e.g. industrialisation by middle-class-managers are Great Britain, France, U.S.A., Turkey, Pakistan, Indonesia, Lebanon, Malaysia, Nigeria, Bangladesh, and India.

Example for the third pattern of industrialisation led by national leaders are : Spain, Egypt, Sudan, Tunisia, Afghanistan, Uganda, and first period of Turkey.

Examples for the fourth pattern of industrialisation by revolution, are : USSR, China, Yugoslavia, Algeria, Libya, Iraq, Syria, and S. Yemen.

But in reality in many countries, some of these patterns are held together, or the country is shifted from one pattern to another. For example Turkey, started industrialisation process by first model during Ottoman Empire era, shifted to third pattern (nationalist leaders) at the beginning of Republican era (1923 - 1946), and to the second pattern after 1946.

Middle class system represents, mixed economic system, (including socialist and capitalist elements), e.g. (private enterprise, state enterprise and state control), in a multy - party democratic regime. If indust-

rialisation led by dynastic elite was succesful, it will be changed into middle - class, mixed economic system; in other case revolutionary or national leader - system may take place. National leader system is a pragmatic system having not relying on a particular theory and doctrine, while revolutionary process rely mostly on a socialistic pattern.

II) INDUSTRIALISATION PROCESS OF TURKEY

During Ottoman Empire and before industrial revolution the artizan - type industry was very developed and well organized under - AHI - and - LONCA - systems (guild). Otocontrol of prices, quality - control, regulation of labor market were managed by these professional organisations.

After industrial revolution, the transformation of the artizanal structure into factory - industry faced with the following handicaps; a) Capitulations, (trade - agreements made among Ottoman Empire and western powers) curtailed the import - custom duty freedom of government ; b) The change of the social and economic needs of people by the influence of westernisation, c) Shortage of the credit institutions, d) Transfer of the capital from Muslim - Turkish people to non - muslim Christian minorities, due to representativeness of European industries. Minorities, by socio - political and economical reasons, keeping their capital for import - trade, didn't invest for industrialisation.

During the first world war, capitulation was abolished unilaterally, but Ottoman Empire lost the war.

In Republican era, during the first period of (1923 - 1950), Economic Congress of 1923 in Izmir, enunciated the main planks of the industrialisation programme, as promotion of industrialisation through private enterprise, with minimum government interference. Encouragement of industry, custom tariffs adjustments to suit the development needs of industry, preferential rates on land and sea transport of local produce, better credit facilities for industry, technical instruction and education and training of engineers for industry.

In 1924, the raw materials required for export industries were exempted from duties.

In 1925. The Bank of Industry and Mining was established to increase the supply of credit to industrial enterprises. In 1927 Law for Encouragement of Industry was issued. This law stood in practise till 1941. According to this law, for approved private enterprise, were given free land up to 10 hectares for construction of the factory.

Exemptions were given from a number of taxes. Mines were also covered by the law.

Industry was still in its early stages. It was estimated that in 1927 about 44 % of the industries were in food processing and 24 % in textiles; Capital goods industries did not exceed 7 or 10 %. The law did help to increase private industry : the number of enterprises grew from 342 in 1927 to 1473 by 1932. Output also increased in most industries, especially in cotton products, sugar and cement. However private enterprises still tended develop relatively simple consumer industries, production of basic commodities such as textiles, paper, and steel remained inadequate.

In 1930 Economic Congress of Ankara the new conditions were discussed, created by the world economic depression. The decision was to introduce state as an agency in economic life for rapid development. So the **period of Etatism** started in 1930 till 1950. Etatism was not a doctrinaire socialist policy, but a pragmatic solution rising out of economic necessities. There were mainly two reasons stimulating etatism : a) From a geographical point of view, i.e. in order to achieve the economic expansion of backward areas. Since private enterprise is motivated with the purpose to gain maximum profit in short terms, it would presumably not invest backward areas, if we consider the situation from the point of view of agglomeration conditions. b) In order to establish massive heavy industry, profitable in long terms, for which private capital are not inclined to invest. The world economic depression of 1930's stimulated this tendency as well.

In this period two five year plans were introduced, mainly for industrial development. The first five year plan was introduced in 1934. A state holding, - Sümerbank - was set up in 1933 to establish, to operate, to participate and finance the industrial enterprises, with capital, provided by the state. Iron and steel industry, factories of wool and cotton textiles, chemical products, cement and paper were established by Sümerbank. By 1950 Sümerbank was operating 22 factories, and 25 retail stores, in addition to establishments in which it had a part interest.

A second five year plan was approved in 1938 which aimed primarily the development of producer and capital goods industries, in contrast to the first plan emphasis on consumer industries. The second plan envisaged the exploitation of mines and natural resources, development of power, establishment of heavy industries consuming local raw materials, industrialisation of eastern Turkey, developments of ports, and shipping and expansion in agricultural exports. A new institution was set up to explore mines and natural resources as (Institute of Exploration and

Study of Minerals), and a second holding was set up as (Etibank) in 1935, to operate and finance mines, natural resources and energy. Between 1930 - 1938, physical output index in medium and large scale industry increased from 35 to 100, having a yearly increase of 12 %. Between 1928 - 1938 real net production income increased 33 % in agriculture, and 80 % in industry, mine, and other public sectors.

During and after the second world war there was a stagnation period, 1939 - 1949, having only 5 % yearly increase in physical product of industry, compared to 12 % of the previous stage of 1930 - 1939.

At the end of 1949, there was a range of heavy goods as well as consumer goods industries in Turkey.

Industrialisation pattern in this period was the type of industrialisation led by National leaders.

The chief heavy industries were iron and steel, metalworks, chemical, and building materials, except for a few small foundries, the entire iron and steel industry, sulphuric acid and superphosphate industry and the bulk of the minerals were operated by the State Economic Enterprises (SEE). In cement, brick and tile industries private ownership predominated. The metalworking industries were entirely in the private sector. Government monopolies existed in some of consumer goods industries like paper and paperboard factories, leather, shoes, alcoholic beverages, tobacco products, salt and matches. In cotton and woollen textile industry private and state sector had the same share, half and half, while other food processing industries like flour - milling, extraction of vegetable oils, milk processing, fruit canning and preservation, and fish processing were in private sector.

After 1950, economy shifted from state to the private sector. commercial class grew up. But due to the wasteful liberation policy in international trade, after 1954 foreign exchange stocks decreased to minimum and government had to put some restriction again on foreign trade. Due to the improvement of demand and import restrictions, local industry was stimulated. At the same time, however the government itself had to undertake major infrastructure investments. So economy went to mixed system.

In 1960, public enterprises contributed 43 % of manufacturing value-added. Value added per person was higher in public enterprise due to higher capital intensity. In food, clothing, wood and leather, the private sector predominated, while in relatively new industries the shares of the public and private sectors were more equally balanced.

After 1962, Economic Planning era started. There have been three five years plans as for : 1963 - 1967 ; 1968 - 1972 ; 1973 - 1977.

Five years plans envisaged a growth rate of 7, 7 and 7, 9 per cent respectively for the whole economy. Yearly average industrial growth rate were respectively 8.1 %, 10.4 %, and 11.7 % in these three plan periods, comparing to the 4.2 %, 4.1 %, and 4.6 % of agricultural sector. The share of industry, in investment increased to 20.3 %, 36.6 %, and to 45.4 % respectively. Industries contribution to GNP increased to 27 % at the end of third plan, decreasing the share of agriculture to 23.4 %. The contribution of industry in the development of GNP will be 36.3 %. The share of industrial products in total export increased from 17.8 % in 1967 to 27.3 % in 1972.

In the first five years plan period the growth were higher in new industries, compared to traditional industries. The new ones were : phosphate, and nitrogenous fertilizers, steel and copper, heavy production equipment, a wide range of engineering products, domestic appliances, organic chemicals, synthetic fibres, and pulp and paper.

In the second plan period top priority was given to intermediate goods, such as chemicals, inorganic fertilisers, iron and steel industry. So metal products grew higher than manufacturing as a whole. The growth of assembly industries was noteworthy during the second plan period. These assembly industries sprang up with the foreign - exchange shortages and import restrictions introduced after the mid 1960's. After 1964 minimum ratios for domestic content introduced and these ratios increased from 35 - 70 in 1967 to 55 - 80 in 1972.

In the third plan top priority is given to investment goods industries. This inclination is shown below :

	first plan	second plan	third plan
Consumption goods industries	28.2	17.4	16.6
Intermediate » »	58.0	68.2	61.4
Investment »	13.8	14.4	22.0

Average annual increases of different industries in the third plan period are planned as : 4.6 % for agriculture, 11.9 % for industry (15 % for mining, 11.7 % for manufacturing, - in manufacturing 7.4 for consumption goods, 14.3 % for intermediate goods, and 16.8 % for investment goods -, 12.5 % for power, energy,), 8.2 % for Services.

In the planning era, some new principles for public sector have been developed. State investment in industry was to be made under one of four

circumstances : to increase the efficiency of existing state economic enterprises (SEE), to fill in the gaps left by the private sector, to set up mixed enterprises in special circumstances and to establish monopolies in areas which were reserved for the state sector. Public and private industries would be given equality of treatment under fiscal, monetary, price and foreign trade policies. These policies would be clearly laid down so that both public and private sectors could plan ahead and act with confidence. So the aim was to improve the industrialisation process in a mixed economic model. (Although the third plan emphasises the public sector more than the preceding periods. In the third plan period, the most developing sectors ; in intermediate Industry : paper, plastic, chemical, fertilizer, petro-chemical, cement, glass and steel sectors ; in Investment industry ; agricultural machines, electronic, automotive and railway industry. In this development National - defence needs are also taken into consideration.

Percentage of Industrial sectors in Manufacturing Industry :

Sectors	1962	1972	1978
1 — Consumption Goods	62	47	42
Food + beverage + tobacco	70	65	67
Textile	30	35	33
	100	100	100
2 — Intermediate Goods	25	39	41
chemical + petrochemical			
+ fertilizer	14	19	22
iron and steel	11	18	18
petroleum productions	26	23	22
others	49	40	38
	100	100	100
3 — Investment Goods	10	14	18
metal industry	34	22	25
Machine »	15	16	16
electrical machine			
+ electronics	10	15	19
automotive industry	37	38	32
agricultural machin.			
and equipment	4	9	8
	100	100	100
Total	100	100	100

Criteriaums for the selection of Projects : Both public and private projects are subject to evaluation before being accepted for implementation or licensing. In the public sector, feasibility studies are first made by the revelant SEE. After the positive results the project is studied by SPO (State Planning Organisation) according to cost benefit analysis, as ; $\text{benefits} = \text{value-added} + \text{foreign exchange savings} + \text{benefits to consumers} + \text{employment factor}$. (All discounted to present values.)

Present c.i.f. prices and production cost are also compared. A shadow price is used for foreign exchange in both investment and benefits. Subject to the investment allocations available for each industry, group, SPO select projects with cost/benefit ratios of higher than unity. After SPO approval has been obtained, the project is examined again by the State Investment Bank before financing is agreed.

For private sector projects, responsibility of evaluation rests with the Leparment of Industry. They don't make a cost/benefit analysis. Projects are viewed with favour if they are in conformity with the five year plan, if existing production is insufficient to meet existing demand, if the plant is to be established on an economic scale and with modern technology, and if balance of payment benefits will accrue either through exports or import substitution. Other issues are the ratio between assets and credits of each proposed venture, gains and losses to government through taxes and subsidies, cost of production, proposed selling prices and location of the industry ; preference is given to location of the less developed parts of the country. Investment/employment ratios are also considered. If financing is necessary, Industrial and Development Bank review the project once more.

The dynamic comparative costs assesment which SPO upholds, has found expression, for public sector projects, through planning decisions about what investment allocation are to each industry group, and for private sector projects, by specifying which industry group should receive priority in licensing. The approvals granted by SPO's project Evaluation Section and by the Department of Industry have to be within these constraints.

III) MIXED ECONOMIC SYSTEM AND COMPARISON WITH JAPAN

Turkey is supposed to be one of the first developing countries to have adopted the mixed economic system on an extensive scale. According to some foreign observators, the system has worked somewhat better in

Turkey than in most other mixed economies. So the experience should therefore be of interest.

COMPARISON WITH JAPAN

In the explanation of Turkish experience, a brief summary of the comparison with the Japanese industrial experience is given.

A large provision of finance by financial institutions sustained the rapid growth of Japanese industry. These institutions in turn derived the bulk of their funds from savings deposits of individual savers. Japan preferred to purchase foreign technology than to induce foreign equity capital. It assimilated, adopted and improved the imported technology by its own work. In Turkey the multiplicity of small industries which were allowed to spring up has not helped the assimilation of modern technology. Japan's use of technological pluralism could also be instructive: large firms using advanced techniques, and small industries employing cheaper labour and using labour intensive methods. The small industries were typically sub-contractors manufacturing parts for the larger industries.

Japan's experience shows that production initially for the domestic market is not necessarily inconsistent with later export success. In fact, import substitution and the local market were the base for developing exports. While small-labor intensive industries made an important contribution, the heavy investments in capital intensive industries - made despite the considerable unemployment until the early 1960's - were vital to the outstanding export performance. The economic system also offered sufficient incentives for continually greater effort.

Japan offers an illustration of the practical limitations of the theory of comparative advantage. It is not the present, but the eventual comparative advantage that matters in the choice of projects.

IV) BASIC POLICIES FOR INDUSTRIALISATION PROCESS OF TURKISH EXPERIENCE

Turkish experience gives us the following conclusions :

1 — Industrialisation is a necessity for every country to develop her economy by these reasons :

a — To evaluate her natural resources in the best way, and to prevent the exploitation of them by other nations,

b — To increase the sectors which have more value-added, and so to increase the national income and welfare of the country,

c — To provide employment opportunity for the increasing population and for the new comers to labor market,

d — To provide the place and stimulation for improvement in technology and science both in practice, research and education.

2 — Industrialisation pattern has no any definite, particular blueprint. It can be changed according to the socio-economic and political structure of the related country. It may be stimulated by the elite - **dynasty, national leaders, middle-class or revolutionary movement**, or by some of them in the some time or by all of them in particular period of the country. It is better to be practical rather than doctrinary on this field. Therefore industrialisation process inevitably come to an era of a mixed economic system, providing the place for free enterprice, by the share and initiation of the state as well.

3 — The sectoral development of industry should be balanced. In other case either in some industry occur idle and excess capacity or the lack of some other industries create bottlenecks, i.e. yarn and woven production capacity in textile, energy consumption capacity of industry and power capacity of the country or of the region (if there is no enterconnecte system in the power distribution system of the country), production capacity of machine industry and steel production capacity of the country (although principally the deficit or excess capacity can be balanced by international trade, in practice that may not be always possible, or feasible, either due to the shortage of foreign exchange or due to the difficulty to find export market.) To achieve sectoral balance, industrialisation process should be based upon economic planning system. If there is a mixed economy, inevitable solution is compulsory planning for the state-sector, and voluntary, but guiding planning for private sector, pushing private industry toward planned direction, through promotion of tax exemptions, providing land and other infrastructure investment facilities, price privileges in energy, water, land supply etc. This can be done either by project selection or by common principles. and by establishment of organized industrial areas.

4 — Sectoral Development priorities should also be economically planned, although there is no any definite solutions, generally priorities should be given to industries, which : a) have abundant raw materials in the country, b) which provide necessary daily consumption needs of the people, c) which provide maximum saving of foreign exchange, d) which provide vital needs of the economy, like energy, e) which provide

the basic needs for development of other industries like iron and steel, machine ind., etc. In Turkish example we see that starting from consumption industry, economy shifted to intermediate and heavy investment industry.

5 — Building industry and otomotive industry are the most stimulator industries. Turkey now has come to the stage of otomotive (highway vehicle industry) industry. As we have seen, by the improvement of otomotive and other assembly industries like electronic, a lot of subsidiary industries have developed. The final step has comet engine industry.

6 — Industry should be shifted from import substitution to the export oriented industry. Japanese experience shows that production initially for the domestic market is not necessarily in - consistent with later export success. Import substitution and the local market are a base for export. Again tariff as well as non - tariff protection of industries do not frustrate export growth.

Mr. Y. Ojimi, Vice Minister of International Trade and Industry of Japan, wrote in the 1972 OECD publication (Industrial Policy of Japan) :

«Should Japan have entrusted its future, according to the theory of comparative advantage, to these industries characterised by intensive use of labor? If the Japanese economy had adopted the simple doctrine of free trade and had chosen to specialise in this kind of industry, it would almost permanently have been unable to break away from the Asian pattern of stagnation and powerty, and would have remained the weakest link in the free world, thereby becoming a problem area in the far east. The Ministry of Trade and Industry decided to establish in Japan, industries which require intensive employment of capital and technology, industries that in consideration of comparative cost of production should be the most inappropriate for Japan industries such as steel, oil refining, petro - chemicals, automobiles, aircraft, industrial machinery of all sorts, and electronics, including electronic computers... The secret of a successful strategy is the concentration of fighting power on the main bottle grounds ; fortunately, owing to good luck, and wisdom spawned by necessity, Japan has been able to concentrate its scant capital in strategic industries.»

This strategy can be restated as; **It is not the present, but the eventual comparative advantage that matters in he choice of industry, sector or project.** Turkish experience support this idea as well.

7 — Credit Facilities and Banking Function : In Turkish experience we have seen that : a) long run credit facilities are not enough, especially

for working capital, b) interest rate are high, c) Banks prefer to give credit for trade sector (import) instead of industry. Therefore either banks should be organized to make flow of the saving capital of the nation to productive sector, or state should set up these kind of special banks. Japan is the best example for banking, providing abundant and cheapest credits for her industry. **International Islamic Bank Project is a very hopeful example on this field.** Through this bank Islamic countries can try to have collaboration for their banking policies, to provide cheap, capital for their industrial development.

8 — Infrastructure investment should be parallel to industrial development. It should be planned as to maximizing social profit.

9 — State economic planning should be supported by regional and city planning. a) Regional planning is advantageous to have balanced growth geographically and to have maximum evaluation of natural and human resources. b) City planning is necessary to realize the industrial investment.

10 — Organized Industrial Regions ; To provide best infrastructure facilities and agglomeration conditions, it is necessary to have industrial regions in or near big industrial cities.

In Turkey, in **three** provinces such an organized industrial regions have been set up. (In Bursa, Manisa and Konya provinces).

In thirteen provinces industrial regions are fixed, and operation is going on, while for other twenty provinces projects have been prepared. In such industrial regions all of these infrastructural investment necessary for the kinds of industry are prepared and submitted for the factories.

11 — Industrial Relations should be organised well, among labor - employer - and state. Trade union problem is a very important factor, both, by economic and social point of view.

12 — Skilled manpower is one of the main bottleneck in industrialisation. Therefore technical education (schols, night - school, courses, conferences, seminars, job on the training, etc.) should be well organized. In Turkish experience since 1934, SEE established industrial schools in the state factories to provide skilled labor, educated technical people in and abroad through scholarships. State factories provided skilled labor and technicians and managerial staff for the private enterprises. Usually, by timing, technical education should be ahead of industrial investment. (Islamic Countries may have collaboration to establish Centers for Industrial Education in different places, in different levels.)

13 — Standardisation : It is necessary to put particular standarts for industrial products and have relations with international standarts. In Turkey, Institute of Turkish Standarts, was set up in 1960 and prepared about 1700 standarts for industrial products. But only 300 of them are made compulsory in practice by government. (It may be suggested to establish such an International Organisation of industrial standarts among Islamic countries,^(*) providing collaboration and exchange among national units.

14 — Productivity Problem : To improve productivity, it is necessary to have collaboration among employer, labor and government.

In Turkey, productivity organisation started after 1950, and was established by legislation in 1965 under the title of National Productivity Organisation. There are two international organisations of productivity : a) European Productivity assosiation, b) Asian Productivity Organisation. The center of the first one is in Belgium and of the second one in Tokyo, Japan. Islamic countries in the Middle - East may also have cooperation among their national units, if any, to exchange of technological datas and knowledge.

15 — Technological Research : This is the most important field for industrial development.

In Turkey a national Unit is founded as TÜBİTAK (The Scientific and Technical Research Council of Turkey) in 1963, to deal and organize technical research activities. They bought a place in Gebze near Istanbul, building all technical research laboratories. This kind of national units may have also collaboration among Islamic countries in the middle - East.

16 — Marketing and International Cooperation : New technology is a necessity to increase productivity. This needs large capital, it increases optimum size of firm. Establishment or firms in optimal size needs in many cases large markets. Unless having large markets, it is not easy to set up plants in optimum size and compete in international market. This is the main reason of creation of Common Market. Therefore Islamic Countries in the Middle - East should try to improve the conditions to provide each other larger markets.

Arap common markets project is an example. RCD (Regional Cooperation for Development) is another example among Iran, Pakistan and Turkey. This pattern can be improved among whole Islamic countries.

(*) Recently Turkish Standardisation Institute has organised such a conference among Islamic Conuntries in Ankara, to achieve such a goal.

One of the target of RCD was to establish combining establishments in respective countries with sharing capital. So this kind of enterprises can be established among Islamic Countries. For some basic products and rawmaterial, a common economic price and export policy can be followed. Petroleum is a good example. The same policy can be applied for rubber, cotton and for other mutual products.

V) SUMMARY :

1 — Industrialisation is a necessity for each **(Islamic country)** : to develop her economy ; to evaluate her natural resources, in the best way; to improve sectors which provide more value added; to provide employment opportunity for the increasing population, and to stimulate the improvement in science and technology.

2 — Industrialisation pattern has no any definite particular blueprint. It can be changed according to socio - economic and political structure of the related country. It may be stimulated by the elite dynasty, national leaders, middle - class or revolutionary movement, or by some of them in a particular period of the country.

It is better to be practical rather than doctrinary on this field. Therefore industrialisation process inevitably come to a mixed economic system, providing the place for free - enterprise, by the share and initiation of the state as well. Turkey started industrialisation process by elite - dynasty, later led by national leaders, and last by middle - class managers, reaching to a mixed economy system.

3 — The sectoral development of industry should be balanced according to a planning system, compulsory for public sector, and voluntary, but guiding for private sector, supported by regional and city planning.

4 — Not the present, but eventual comparative advantage should be taken into consideration for selection of industrial project or sector priorities. Japan's experience approves this tendency.

5 — Cheap credit facilities are imperative prerequisite for rapid industrialisation and balanced economic growth. International Islamic Bank project which is found to provide credit without interest might be a good example on this field.)

6 — Better industrial relations, among labor - employer and state, and skilled manpower policy is a very important factor in the process of industrialisation.

7 — Islamic countries especially in the middle - East should have international collaboration among them, on the subjects of standardisation of industrial products, productivity improvement measures, industrial education institutions, technological research and marketing analysis.