

C H A P T E R III
THE LOCATION CAUSES

The Cause of Location

The conditions governing the location of industries are apparently among the most important determinant factors of regional growth. They largely regulate the rate at which new units and new capacity are added to the regional economy. Their influence on the industries rests on the relative - - advantages and disadvantages the industry will have of them in different regions or in different parts of the same region. To be effective as locational factors in a competitive setting it is necessary for them, as examined earlier, to be regional as well. Whatever be their importance, so long as they are non-regional they do not enter decisively into the location consideration of industries. The determination of the location behaviour of the industries in relation to the factors characterised as regional and non-regional, may go a considerable distance in this direction. Besides, a separate analysis of the regionality impact of each of these factors on the origin and operation of all the industries taken together, undertaken in the next chapter, may prove an additional step in the same direction.

The range of important location causes comprises the considerations of raw materials, market, transport, labour, power site and service, entrepreneurial personal factors, government or local influence, and indeed a series of other rarer and less important considerations. Individually or in groups, they determine the industrial prospects of a - - region. For all the units under investigation considerations of raw material, market, transport and personnel factors figured very frequently following one another very closely in that order (Table 1)

The stronger raw material orientation of the Primary Processing is evident from the fact that as against 83 per cent of the Primary, only 31 per cent of the Subsequent Processing reported it. The impact of market is precisely the opposite and perhaps with greater differentiation between these two kinds of processing. Only 16 per cent of the Primary reported market consideration, while the reporting by the Subsequent was 57 per cent. Indeed, the percentage of the Primary reporting under market is also less than that under the remaining two of the four important considerations.

Like market, transport consideration too is reported by a higher proportion of the Subsequent though the difference in the reporting percentages between the two types of processing units is less market than under market. Personal consideration, however, figured equally among both types of processing.

CAUSES OF ILL-HATIONAL

Classification	Rev-Materials		Markets		Transport		Personal Reasons		
	D.	T.	D.	T.	D.	T.	D.	T.	
All.	26 (33.3)	17 (21.8)	22 (28.2)	8 (10.3)	30 (38.5)	7 (9.0)	18 (23.1)	11 (14.1)	22 (28.2)
I Primary	22 (61.1)	8 (22.2)	5 (13.9)	1 (2.8)	6 (16.2)	4 (11.1)	5 (13.8)	3 (8.3)	7 (19.5)
Subsequent	4 (9.5)	9 (21.4)	17 (40.5)	7 (16.7)	24 (57.1)	3 (7.1)	18 (30.9)	4 (9.5)	12 (28.6)
II Below 50.	10 (25.0)	10 (25.0)	15 (37.5)	18 (45.0)	21 (52.5)	4 (10.0)	7 (17.5)	6 (15.0)	12 (30.0)
51-100.	6 (35.3)	3 (17.6)	6 (35.3)	6 (35.3)	6 (35.3)	4 (23.5)	4 (23.5)	4 (23.5)	7 (41.1)
Below 100.	16 (28.1)	13 (22.8)	29 (50.9)	6 (10.5)	27 (47.4)	4 (7.0)	11 (19.3)	9 (17.5)	19 (33.3)
101 and Big.	7 (53.8)	3 (23.1)	10 (76.9)	2 (15.4)	3 (23.1)	3 (23.1)	3 (23.1)	2 (15.4)	3 (23.1)
Big.	3 (37.5)	1 (12.5)	4 (50.0)	-	-	-	4 (50.0)	-	-
101 and Above.	10 (47.6)	4 (19.0)	14 (66.1)	2 (9.5)	3 (14.3)	7 (33.3)	7 (33.3)	2 (9.5)	3 (13.3)
III Rural	9 (69.2)	3 (23.1)	12 (92.3)	1 (7.7)	1 (7.7)	-	-	3 (23.1)	6 (46.1)
Upto 1,00,000.	10 (62.5)	3 (18.7)	13 (81.2)	2 (12.5)	2 (12.5)	2 (12.5)	4 (25.0)	1 (6.2)	5 (31.2)
Non City	19 (65.6)	6 (20.7)	25 (66.2)	2 (6.9)	3 (10.3)	2 (6.9)	4 (13.8)	4 (13.8)	11 (37.9)
Above 1,00,000.	6 (27.3)	7 (31.8)	13 (59.1)	2 (9.1)	10 (45.5)	3 (13.6)	5 (22.7)	1 (4.5)	4 (18.2)
Bengalores	1 (3.7)	4 (14.8)	5 (18.5)	4 (14.1)	17 (63.0)	2 (7.4)	9 (33.3)	6 (22.2)	7 (25.9)
City	7 (14.3)	11 (22.5)	18 (36.7)	6 (12.5)	27 (55.1)	5 (10.2)	14 (28.6)	7 (14.3)	11 (22.5)
Urban	17 (26.1)	14 (21.5)	31 (47.7)	8 (12.5)	29 (44.6)	7 (10.7)	18 (27.7)	8 (12.3)	16 (24.6)

CAUSES OF MORTALITY

Classification	Site and Services		Labour		Integration Advantage		Government Influence			
	D.	I.	D.	I.	D.	I.	D.	I.		
All.	(3.8)	(9.0)	(3.8)	(3.8)	(2.6)	(1.3)	(3.8)	(1.3)	(3.8)	(1.3)
I Primary	-	(5.6)	-	-	(5.6)	-	-	-	-	-
Subsequent	(7.1)	(11.9)	(7.1)	(7.1)	-	(2.4)	(7.1)	(7.1)	(7.1)	(7.1)
II Below 50.	-	(2.5)	-	-	-	-	-	-	-	-
51-100.	(11.8)	(11.8)	-	-	(11.8)	(5.9)	(17.6)	-	-	(5.9)
Below 100.	(3.5)	(1.8)	-	-	(3.5)	(1.8)	(5.3)	-	-	(1.8)
101 and Btg.	-	(15.4)	-	-	-	-	-	(7.8)	(7.8)	-
Btg.	(12.5)	(50.0)	(37.5)	(37.5)	-	-	-	(25.0)	(25.0)	-
101 and Above.	(4.8)	(28.6)	(14.3)	(14.3)	-	-	-	(14.3)	(14.3)	-
III Rural.	-	(7.7)	-	-	-	-	-	-	-	-
Upto 1,00,000.	-	(12.5)	-	-	(6.2)	-	(6.2)	(6.2)	(6.2)	-
Non City	-	(10.3)	-	-	(3.5)	-	(3.5)	(3.5)	(3.5)	-
Above 1,00,000.	(9.0)	-	-	-	(4.5)	-	(4.5)	(4.5)	(4.5)	(4.5)
Bangalore.	(3.7)	(14.8)	(11.1)	(11.1)	-	(3.7)	(3.7)	(3.7)	(3.7)	-
City	(6.1)	(8.2)	(6.1)	(6.1)	(2.0)	(2.0)	(4.1)	(2.0)	(4.1)	(2.0)
Urban.	(4.6)	(9.2)	(4.6)	(4.6)	(3.1)	(1.5)	(4.6)	(1.5)	(4.6)	(1.5)

Note: 1. 'D' = Decisive Cause, 'I' = Important Cause, 'T' = Total.

2. No reporting under 'Decisive Cause' in 'Labour', 'Peer' and 'Government Influence'.

3. Figures within bracket, in all tables denote percentages to the respective totals.

Marked, but irregular variation in the frequency of the causes along the size of the units is also discernible. The percentage reporting raw material increases slightly along the growing size. But highest reporting is under the 101 - Big group. Similarly, under Transport, slow and steady increasing tendency in the reporting percentage is also in evidence. Under market, a more clearly marked reverse tendency can be observed. It seems the markets of most of the larger sized firms are dispersed over a larger area. Their market orientation may gradually get deflected along the means of accessibility. That seems to be the reason for decreasing importance of market as against increasing concern for transport relation. It is not unlikely too that transport orientation may partly be a deflection from material orientation. However, the expansion of supply area along with the size of the firm does not appear so common as that of market area. Alternatively, there is no clear ground to conjecture whether an unsteady, yet increasing tendency of material orientation, is effected in any way by the increasing transport orientation. That depends mostly on the spatial behaviour of the material supply in relation to the size of the firms. Any way, it seems difficult to offer a single explanation to the position of material orientation that does not vary widely with the size.

The relationship between unit size and the frequency of personal consideration is, however, somewhat definite and significant. Percentage of units reporting personal

consideration under 101-Big is relatively low at 23 but under the Big it is not reported at all. Among the two lower size groups, reporting is higher but it is lower in the Small units than in the 51-100 group. As a first approximation it is quite reasonable to assume that owing to the increasing magnitude of the pecuniary stake involved in the increasing size, location tends to be more and more emancipated from personal considerations, which mostly comprise non-pecuniary issues and are often marshalled as considerations to outweigh the pecuniary issues. Moreover, a higher magnitude of income flow offers solution to several of such non-pecuniary issues at any place and thereby helps overcome the restraints of spatial immobility imposed by personal considerations. Organisation of larger units, in addition, is more on an impersonal plane and naturally individual personal considerations do not weigh so significantly. Therefore, complete relief of the Big and a relatively greater freedom of the 101-Big from personal consideration seem to stand explained. But the relatively smaller percentage of reporting by the Small units cannot be explained consistently. It seems desirable to include them along with the next higher stratum, i.e. 51-100, and together they do report a higher percentage of personal consideration than the two higher strata of the larger units do.

Finally the breakdown of the causes of location along the size of localities may be studied. The percentage -- reporting raw material is excessive in Rural areas and

in Towns fairly high in Cities, and in Bangalore quite low, where it is also the lowest among the four major location considerations. The situation is apparently the reflection of the nature of Primary - Subsequent composition of the industrial structure of the respective locations. Town locations have advantages mostly in processing the extractive raw materials, the ultimate market or the next stage of processing of which usually lies at a distant locality. Restraints of perishability or removeable weight or of dispersed source tend to pin down locations to material sources. Lesser locations which are usually not the market mostly manufacture only those commodities whose mobility to longer distances they can enhance by imparting endurance to utility extracting dead weight from unit value or by converging at a few points the area of supply.

The opposite tendency is reported under the market cause. Rural areas and Towns poorly reported while City and Bangalore did heavily. It needs no more explanation than the statement that the aggregation of production and consumption that usually characterises the urban area, creates market and attracts market oriented firms. Its directly opposite tendency to material orientation further explains the general market orientation of the units in the larger locations and material orientation of the units in the - - smaller centres and at isolated locations.

Transport orientation naturally appears insignificant in rural areas which are generally devoid of good transport

relations Among other locations it is reported by almost equal percentages, though in the normal situation one would have expected a higher reporting in cities and Bangalore against the context of the fact that better transport conditions generally prevailed in larger centres

Personal reasons are reported by a greater percentage in Non-city locations than in City locations The relatively higher percentage in non-city locations is mainly due to the collateral stake in land which the industrialists continue to have even after taking to manufacturing, usually on a smaller scale But, among cities though in city size Bangalore leads the rest far and away, here the reporting percentage is higher than in other cities Perhaps the greater extent to which this capital city caters to the cultural and other ends of the people might have been responsible to this outcome

Though important factors in production, labour and power figured insignificantly, because of their non-regional characteristics ¹ Government and local influence does not appear to have touched many Attraction of site, either of premises or of climate and services like water remained a matter of relative insignificance

Viewing as a whole, the performance of the location causes is tinged in part with some disturbing elements The

¹ Regional character of each major location factor is examined in detail in the next Chapter

predominance of raw material, market and transport considerations is understandable in view of the spatially differential cost and feasibility impact they have on the manufacturing units reflected in their regional characteristics. Even the insignificant impact of power and labour is clear enough as they are non-regional in cost characteristics, though power is a decisive technical factor in a setting where other location factors are favourable. However, the high frequency of the personal reason, which mostly related to the reason of promoter's residence, stands unique in its seemingly non-pecuniary and non-technical nature. It is also significant in another sense that the personal reason particularly the reason of residence often reverses the sequence of promotion. Starting from locations, entrepreneurs choose industries and not the other way around. Therefore, this somewhat strange entrepreneurial behaviour may have to be accepted as a very common fact.

Particularly, in the context of regional locational planning, the queer sequence of logic that makes an area as the starting point assumes great significance as it -- places a high premium on local entrepreneurial resource in the calculus of regional potentiality and in the course and pace of regional growth. It also renders perfect inter-regional mobility assumptions in general unrealistic as the significance is also transmitted to the issues of capital and entrepreneurial mobility. It has been customary to assume perfect mobility of capital in an open economy provided there exist competitive incentives for investment.

But if projects fail to move to their most economic locations, capital and enterprises that could only be embodied in the form of project too fail to move for the same reason. Though capital and enterprise have been distinguished as separate factors of production for theoretical sophistication, as operational phenomena, they cannot be kept so much apart. There are, as a matter of fact few, if any, pure entrepreneurs. Most of them are capitalist entrepreneurs sometimes also encompassing in themselves the traits of ownership of other factors of production like labour and land. That leads to a situation where the rate and volume of industrial investment may depend largely on capital and enterprise available in the region and not solely on investment opportunity afforded by the Schumpeterian objective circumstances. So, under such imperfect mobility conditions, dispersion of investment opportunity over all regions where capital and enterprise exist leads to create a better incentive environment than spatial concentration of opportunities would do. When mobility is imperfect among the component factors, a deliberate maintenance of their right proportions over all the area is the key to the policy of balanced regional development.

A qualifying note highlighting further the prevalence of personal consideration is necessary. It seems that the recorded frequency of personal consideration as a factor in location decision might have been deflated. Objective factors of location considerations whether decisive or not, usually appear obvious and conspicuous to the entrepreneurs.

Perhaps, subjective elements are not as consciously realised and are not so impressive among a set of calculative considerations as objective facts are. In such instances, it may be possible that the perfect economic logic of the location may be a mere chance coincidence while on a decisive plane may be recorded the potential force of subjective factors not consciously brought to bear on the exercise of the judgment until the judgment had any chance to appear to go against them. If this reasoning were correct there is reason to assume that the real frequency of personal factor is more than what has been recorded. For instance, a study undertaken in the State of Michigan where the reason for the choice of the State to locate the industries was asked, industries representing more than 50 per cent of the employment reported personal consideration⁵. In a study of the locations of eight small firms in Alabama, personal consideration was a dominating factor for six of them of them.

Findings of other comparative studies

The results of three studies on causes of location are available though the data as such cannot be strictly compared owing to the dissimilarities in their background and differences in concept, classification and identification.

The following is the finding presented in terms of frequency in percentages by Greenhut and Colberg of the most influential and secondarily important location causes of industries' at Florida.

5 Katona and Morgan. Op cit, p 75

Causes of Location in the
Florida Study

Sr No	Causes	Most in- fluen- tial (in per cent)	Secondarily important (in per cent)	Fither primarily or se- condarily (in per cent)
1	2	3	4	5
1	Access to Markets	51 9	5 5	21 8
2	Anticipation of growth of markets	12 8	15 8	14 7
3	Amicable labour relations	1 7	2 3	2 1
4	Lower wage	2 6	7 2	5 6
5	Availability of labour	—	7 1	4 9
6	Ease of attracting out of State personnel	4 7	2 5	3 3
7	Low freight cost on obtaining raw mate- rials & components	7 7	3 8	5 2
8	Availability of raw materials	—	5 7	3 9
9	Low cost of fuel	—	1 1	—
10	Availability of capital	—	1 1	—
11	Low freight cost on ship- ping final product	10 7	10 9	10 8
12	Adequate waste dis- posal possibilities	—	1 2	—
13	Climate (as it affects operations)	1 8	11 1	7 8
14	Community facilities	2 9	2 9	1 9
15	State and/or municipal tax structure	—	2 8	1 9
16	Climate as an attraction to top management	—	7 5	5 9
17	Personal, without econo- mic advantage	—	4 2	2 8
18	Personal with economic advantage	—	4 6	2 9
19	All other factors	3 2	2 7	4 5
		100	100	100

Excessive market orientation in a highly industrialised area is apparent enough. Equally significant, if not more, is the weak raw material orientation and the low frequency of the consideration of the freight of inputs. Moreover, though wage differential is much publicised as a regional factor, in the U S economy, it still appears an insignificant consideration. Power only follows suit. Access to market founded partly on proximity and partly on transport relation is a dominating location cause of this advanced economy though it cannot be a valid generalisation for all advanced economies.

In another study, Katona and Morgan⁶ have studied the executives' reasons for locating their plant in the State of Michigan. The area in question was not a specific location, but the State as a whole. The results, are however, expressed in terms of employment percentages represented by reporting units. Though much could not be read into the causes expressed in such aggregate form, the data are presented below for what they are worth.

6 Katona and Morgan Op cit , p 75

Executive's Reasons for Locating in Michigan

Reason	Percentage of employment represented by firms -- reporting each reason
Personal reasons	51
To be near markets	33
Availability of plants or plant sites, etc	12
To be near materials	8
Availability of suitable man power or skills	6
Assistance and encouragement by local groups	2
Miscellaneous	5
Reasons unknown	5

As usual, here also market figured significantly. But the prominence of personal reason is startling. The location under reference is, however, the State. Any alternative locations in this case meant a choice between different States. It is not so handy a choice as a set of locations within the same State. Therefore, the personal reason might have remained unusually predominant. For, leaving the State would also have meant a great break from the society. Because of this strange concept of location, a discounting factor may have to be applied to the recorded dominance of personal consideration.

The third source of data is the annual survey of Industrial Development by the Board of Trade, London, - - conducted annually for a few years. Motives influencing the choice of location of only new units were recorded and only one predominant reason for each unit was taken note of. Data for two years are presented below.

Reasons for the choice of location of new plants

Reason	No. of cases	
	1938	1937
a) Accessibility of raw materials	17	24
b) Proximity to markets	18	32
c) Suitability of labour	31	65
d) Cheap land, low rent, low rates	20	36
e) Proximity to other factories in the same industry	33	36
f) Convenience of premises (including transport facility)	182	205
g) Proximity to employer's residence	4	2
	<u>305</u>	<u>400</u>

Neither raw material and market orientation, nor personal reason feature here in any impressive manner. Convenience of premises that includes transport relation, is by far the most important cause of location. Though transport relation might have been an important factor in the identification and classification of causes, transport relation or the

convenience of the premises might have been interpreted quite liberally to include several cases that would have legitimately fallen under market or material orientation

Taken together it is evident that the results of these investigations into the nature of location behaviour of the firms thus vary widely. Variations in backgrounds, concepts, classification and identification have quite obviously contributed substantially to such disparity. A strict inter-comparison is, therefore, denied and so also their mutual corroborative value is meagre. A negative conclusion that there cannot be an absolute ideal pattern of location behaviour is, however, compelling enough. Each economy may have to discover its own pattern and follow it up over years. All the same they point out the universal importance of factors like market and transport. But raw material orientation found as important in the present investigation has hardly any importance there. This unique feature of the present setting ^{is} indicative of the character that in the initial stages of industrialisation raw material source particularly of extractive origin, is an important locational factor, and consequently a determinant of growth. Its relative importance is likely to be reduced in the course of development when market and transport consideration may gain an upper hand. Also the relative decline may be due to a progressive increase of non-resource based industries in the economy, accessibility and easy mobility of resources over the face of the economy and a rapid growth of transport structure and market areas.