Social and cultural factors in FDI flows: evidence from the Indian states

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Abstract: This study examines the possible cultural factors affecting FDI in different regions of one large emerging economy, namely India, in terms of the varying religious, social and political backgrounds of the different states. Although the effects of culture on business practice have been extensively studied, less research has been published on the effects of culture on international trade and investment. In addition, culture is often narrowly defined in terms of implicit psychological attitudes, with little attention being paid to the effects of explicit cultural features such as religion or to sociological factors such as urbanisation and education levels, which may have a crucial effect on the ability of countries and regions to attract FDI and on the uses to which FDI inflows are put. Our findings indicate that social and explicit cultural variables have a measurable effect on FDI flows, with urbanisation being the most important factor.

Keywords: Foreign Direct Investment (FDI); India; culture; urbanisation; economic development.


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1 Introduction and literature review

Foreign Direct Investment (FDI) is now an important factor in the development of economic capacity in economies at all stages of development, with global cross-border investment flows reaching a peak of US$ 1.4 trillion in 2000, before declining to US$ 475 billion in 2003, of which emerging economies received a share of almost US$ 200 billion (UNCTAD, 2004, p.3). FDI in India and India’s share of world inward investment has been consistently increasing and reached a total of US$ 5 billion in 2003 ((UNCTAD, 2004, p.27). However, India’s 1.05% share of FDI is lower than its 16.97% share of world population (World Bank, 2005, pp.256, 257) and 1.65% share of world Gross Income (World Bank, 2005, pp.256, 257). It may also be noted that in the same year, the People’s Republic of China’s inward FDI was far higher, amounting to US$ 35 billion (UNCTAD, 2004, p.27), despite having a population of only a little over 20% higher than India’s. This indicates that there is clearly scope for FDI in India to increase in future (Planning Commission, 2002).

India has, over the last decade and a half, relaxed trade and investment policies, especially in relation to FDI, with the remaining barriers largely affecting imports of manufactured goods (Ahluwalia, 2002; Balasubramanyam, 2003) and taken steps to dismantle public sector monopolies and encourage private investment generally (Ahluwalia, 2002; Planning Commission, 2002).

A further aspect that must be considered in the Indian context, however, is the policy of individual states. Politically, India consists of 28 states and seven territories, each with a substantial amount of autonomy in industrial policy and with different approaches. Cultural, social, and geographical backgrounds also differ widely, with some territories such as Pondicherry, for example being primarily urban and possessing easy access to the outside world, in contrast to some of the more remote and rural inland states, such as Bihar and Assam. Religious backgrounds also vary substantially, with the majority Hindu population forming a minority in eight states, including the north-eastern state of Arunachal Pradesh that has no clear religious minority, and with the religious picture further complicated by syncretism, eclecticism and doctrinal divisions. Economic conditions also vary, with the urbanised coastal state of Maharashtra enjoying per capita GDP more than twice that of its landlocked, rural neighbour, Madhya Pradesh (Ministry of Finance, 2005, p.s-12, Table I.8). Ahluwalia (2002) has commented on the fact that different states have had widely differing levels of success in both increasing investment generally and attracting FDI.
Political factors may also play a significant role in the development of trade and investment, as well as the direct impact of state government decisions, local political identity can both reflect social attitudes and economic circumstances and affect the expectations of outsiders looking for locations to invest.

1.1 Determinants of FDI

It is important to consider two questions: how to create an environment that attracts FDI and also how to ensure that any FDI will have a beneficial effect on the local economy.

Various attempts (Scaperlanda and Mauer, 1973; Scaperlanda and Balough, 1983; Maniam and Chatterjee, 1998) have been made to examine the factors that influence the overall flows of FDI into a country. However, these studies have not generally examined the differences in FDI flows between different regions of the same country. Among the factors considered have been labour and capital costs, in both host and investing nations (Lucas, 1993), demand for products (Scaperlanda and Mauer, 1973; Scaperlanda and Balough, 1983; Lucas, 1993), capital controls (Scaperlanda and Mauer, 1973; Scaperlanda and Balough, 1983), tariff and other trade barriers (Lunn, 1980; Scaperlanda and Mauer, 1973), exchange rates (Maniam and Chatterjee, 1998), trade balances (Maniam and Chatterjee, 1998), geographical distance from investing nations (Frenkel et al., 2004) and GDP size and growth (Scaperlanda and Mauer, 1973; Lunn, 1980; Maniam and Chatterjee, 1998; Frenkel et al., 2004). These studies have generally taken place at the national level. However, the national approach is not wholly appropriate in India, a federal country in which the states have substantial power to decide industrial and trade policy and in which culture and levels of development vary greatly from one state to another.

Kogut and Singh (1988) suggest that cultural distance can play a role in determining the nature of foreign investment and Tahir and Larimo (2004) suggest that overseas investors are more likely to invest in areas with a low cultural distance from their home country. As India is a large and diverse country but with a degree of political and economic cohesion, this paper will examine whether cultural factors play a role in determining the locations that attract FDI. is of especial interest because the different cultural and religious groups within the culture may have greater or lesser cultural distances from different countries in the outside world.

1.2 Effects of FDI

In addition, it is important to consider whether the FDI that is attracted is beneficial to the economy. There is already a substantial body of research into the effects of FDI generally and the factors that can make FDI more or less beneficial.

FDI can make a positive contribution to economic growth, by providing additional capital and facilitating technology transfers (Blomstrom et al., 1994; Balasubramanyam et al., 1999; Borensztein et al., 1998; de Mello, 1999). Marwah and Tavakoli (2005), examining the effects of FDI in Thailand, Malaysia, the Philippines and Indonesia, conclude that FDI makes a positive contribution towards economic growth by increasing quantity of investment in the economy, even if the efficiency of the investment may not improve. To this extent there appear to be some benefits from all FDI.
However, Aizenman (2005) suggests that the benefits of FDI generally accrue to the workforce, with local entrepreneurs being hit by the loss of a protected market for control of enterprises and joint ventures and consequently increased competition for labour and property. This may have an impact on the relative power of labour and capital. It may also mean that control over economic activity is increasingly handed over to foreign corporations, constrained only by government action, with the local economy being forced into a position of dependency. This confirms the view of Driffield and Taylor (2000) that FDI creates additional demand for skilled labour, with a knock-on effect on all sectors of the workforce.

Aitken and Harrison (1999) found that the effect of FDI on productivity in local firms was negative overall, with gains in productivity at plants receiving foreign investment being more than offset by the loss in total factor productivity resulting from loss of market share and consequently poorer overhead recovery in other firms. They did not conclude that FDI had a negative effect on the economy overall, because the increase in productive capacity might be capable of offsetting the reduction in productivity. However, once more the effects were likely to be negative for locally owned business. This is of some importance for several states in India, where support for local entrepreneurs and business start-ups, particularly among groups perceived to be at a disadvantage, is an objective of state policy.

Another problem for small businesses is raised by Vachani (2005), who found some evidence that the success of FDI is partly a function of the size of the investing company. Small and Medium-sized Enterprises (SMEs) found it harder to co-ordinate activities, manage a sales network and improve labour productivity after opening overseas operations than large multinationals. Aitken and Harrison (1999) also observed that FDI improved the productivity of small plants but not large ones. This has implications for the type of FDI that may be most beneficial in increasing output. It also has implications for domestic investment, as larger and more established foreign corporations may be better placed to take advantage of any investment incentives than Indian SMEs seeking to move into new regional markets.

Nayak (2005), examines the success of Suzuki’s investment in Maruti Udyog Ltd. from the investing company’s point of view and concludes that much of the success of the venture is the result of Suzuki’s close involvement in the project, including management secondments as well as equity participation and extending to similar involvements in the investors’suppliers. This involvement back through the supply chain was important not only in order to access lower cost components through local sourcing but also in order to comply with government-imposed local content requirements. On the basis that what is good for business is good for the country as a whole, it therefore seems to make sense to attract FDI primarily from companies who are likely to take a close long-term interest in their FDI projects and who have the capacity to develop and maintain close communication links with their home operations.

A further potential advantage of FDI is the possibility of technology spillovers, which can potentially enable the recipient country to benefit from advanced technologies developed overseas. Spillovers may be the result of competitive pressures (Globerman, 1979; Blomstrom, 1986), demonstration effects, mobility of trained staff from foreign-owned to domestically owned businesses or cooperation with local suppliers to enhance their products (Caves, 1998; Nayak, 2005).
Elmawazini et al. (2005) conclude that technology transfers to local businesses and productivity gains in the host-country economy largely depend on the pre-existing state of development in the economy and the level of education. This is again potentially significant for India, as education policies and education levels vary between the states and some states’ populations may therefore be in a better position than others to take advantage of technology spillovers.

Haddad and Harrison (1993) found no evidence of technology spillovers or improved sector productivity as a result of FDI in Morocco. Likewise, Aitken and Harrison (1999) found no evidence of a spillover of new technologies from foreign-owned to domestically owned firms in Venezuela. It is therefore important to ask, in terms of ensuring that the potential benefits of FDI are realised, how states can ensure that they attract the FDI that really results in the technological development of the local economy generally.

Hirschey and Caves (1981) found that the transfer of research and development functions to overseas subsidiaries was more likely in cases where the overseas subsidiary was serving a local market rather than producing goods for export and was especially likely if the product needed to be adapted to local conditions. This was confirmed by Nayak (2005). It is therefore worth considering the question of the proportion of overseas-owned plants’ trade that is conducted within the region.

2 Research questions

This paper constitutes an attempt to consider two questions in relation to FDI in India in the 1990s and 2000s. Firstly, we address the question of whether FDI has proved beneficial in increasing economic growth. Secondly, we examine the relationship between a variety of social, economic and cultural variables, to establish whether they have any impact on FDI.

The variables chosen were intended to reflect cultural factors and social and economic conditions. The factors chosen include household size, urbanisation, unemployment and religious adherence. The interest in the religious variables consists partly in the possibility that some religious groups may have characteristics that are more or less attractive for foreign investors than others and partly in the fact that different religious groups may have greater or lesser cultural distances from investors in other countries.

3 Method

Data were collected from a variety of government and commercial sources (listed below for each variable for FDI approvals, economic growth and a variety of social factors). These were then used in regression analyses using SPSS to establish the relations between variables. A range of social variables were then used as independent variables to try to establish whether any causal relationship existed between these variables and FDI approvals. The assumption is that social factors may affect FDI. However, it is acknowledged that other factors may be of significance, including positive and negative cross-correlations between variables such as urbanisation, household size and literacy levels. FDI may also have an impact on some social and economic variables. In some cases, such as urbanisation, the two may be reinforcing but in cases such as
unemployment, high levels of FDI attracted to areas with large pools of unused labour may have a role in reducing unemployment.

In addition, certain geographic variables that are expected to have an impact have not been examined – including average distances from major cities and communication routes and the level of various mineral deposits, which are likely to attract companies involved in extractive industries. Political factors may also play a significant role in the development of trade and investment. In addition, the direct impact of state government decisions, local political identity can both reflect social attitudes and economic circumstances and affect the expectations of outsiders looking for locations to invest.

Difficulties in obtaining data for some variables may have affected our results. For example, there is a lack of official figures for actual FDI flows to individual states in any given year and therefore FDI approvals over an eleven-year period are used as a proxy for FDI. It should be noted that actual FDI has historically tended to be less than 50% of approved FDI because of aborted or scaled-down projects and timelags between approval and implementation.

4 Findings

4.1 FDI and growth

Total economic growth over the period from 1994 to 2002 for each of 28 Indian states and seven territories was regressed on FDI approvals, using the following model:

$$\text{GROWTH} = \alpha + \beta \text{ FDI} + \varepsilon$$

where FDI is the total value of FDI approvals per head between 1991 and 2002, from figures provided by the Indian Investment Centre (2003). GROWTH is the total economic growth rate at current prices from Fiscal Year 1993–1994 to Fiscal Year 2001–2002 (the earliest and latest years for which figures were available) taken from Ministry of Finance (2005). The results are shown in Table 1.

<table>
<thead>
<tr>
<th>Alpha/beta</th>
<th>$t$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>9.8</td>
<td>20.284</td>
</tr>
<tr>
<td>FDI per capita</td>
<td>0.0002177</td>
<td>2.373</td>
</tr>
</tbody>
</table>

There is a positive and significant relation between per capita FDI approvals and GDP growth, suggesting that FDI does tend to lead to an increase in economic activity. The effect could be substantial. On average, 10,000 Rupees (US$ 230) of FDI approvals per capita added 17.41% to GDP over an eight-year period (2.18% per annum).

However, the effects of FDI were not felt evenly. The Northern state of Himachal Pradesh experienced total growth over this period of 3.1% more than would be predicted on the FDI model alone, whether because of more efficient use of FDI or other factors, while Jharkhand’s growth was 3.9% less than predicted.

Other states and territories that exhibited higher rates of growth than predicted by FDI alone (and higher than average overall growth) included Goa, Pondicherry and
West Bengal. States with lower than predicted growth included the Andaman and Nicobar Islands, Arunachal Pradesh and Delhi. It is noteworthy that the states with higher than expected growth all have active policies for encouraging start-up enterprises generally, with generous tax reliefs and subsidies, including over 100% relief on sales tax for small scale industries in Himachal Pradesh and 15-year exemptions from sales tax for similar enterprises in Goa. It may, however, be observed that these policies may tend to favour small local businesses more than inward investors and that Himachal Pradesh and West Bengal attracted less than the average amount of FDI over the period. It appears that encouragement for local entrepreneurs can have an important effect on the local economy, after taking account of FDI. However, it is not clear whether this assistance helps local industry develop links with FDI-supported plants.

A further observation is that the residual term \( \varepsilon \) in the above model is positively correlated with literacy rates (\( \beta = 0.11 \)), confirming Elmawazini et al.’s finding that the level of social development and especially education, are vital in securing the benefits of FDI and that less educated sectors of the population find it difficult to benefit.

### 4.2 FDI and social and cultural factors

FDI approvals for each state and territory over the period from 1991–2002 were modelled on a range of variables factors, to establish whether relationships existed between social and cultural factors and states’ ability to attract FDI. The model tested can be described by the following equation:

\[
\text{FDI} = \alpha + \beta_1 \text{GDP} + \beta_2 \text{GDPperCap} + \beta_3 \text{UNEMP} + \beta_4 \text{EMP} \cdot \beta_5 \text{LIT} \\
+ \beta_6 \text{URB} + \beta_7 \text{HOUSE} + \beta_8 \text{REL1} + \beta_9 \text{REL2} + \beta_{10} \text{REL3} \\
+ \beta_{11} \text{REL4} + \beta_{12} \text{REL5} + \beta_{13} \text{REL6} + \varepsilon.
\]

(2)

The variables were defined as follows for each state.

- \( \text{FDI} \) is the total value of FDI approvals per head between 1991 and 2002 in millions of rupees, from figures provided by the Indian Investment Centre (2003).
- \( \text{GDP} \) is the total State GDP for 1993–1994 (the earliest year for which figures are available for all states), from the Ministry of Finance Economic Survey for 2005 (Ministry of Finance, 2005).
- \( \text{GDPperCap} \) is the state GDP per head for 1993–1994 from Ministry of Finance (2005).
- \( \text{UNEMP} \) and \( \text{EMP} \) are the percentage unemployment and employment rates respectively, calculated from figures provided for urban and rural unemployment from the National Sample Survey Organisation (NSSO, 2003) and figures for urban and rural populations from the Census of India 2001 (Ministry of Home Affairs, 2001).
- \( \text{LIT} \) is the percentage of adults who were literate in 2001 (Ministry of Home Affairs, 2001).
- \( \text{URB} \) is the percentage of the population classed as urban (Ministry of Home Affairs, 2001).
- \( \text{HOUSE} \) is the average household size (NSSO, 2004).
- \( \text{REL1} \) through to \( \text{REL6} \) are six variables representing the percentage of the population who said that they followed each of the six largest religions (Ministry of Home Affairs, 2001), namely Hinduism (REL1), Islam (REL2), Christianity (REL3), Sikhism (REL4), Buddhism (REL5) and Jainism (REL6).
- \( \varepsilon \) is the residual term for other factors not detected in this model.

For the purposes of this model, the territories of Dadra and Nagar Haveli, Daman and Diu and Lakshadweep had to be excluded because of a lack of GDP data and Chhatisgarh, Himachal Pradesh and Uttarakhand were also excluded because of a lack of lack of information on employment and unemployment rates.
The results of this analysis are shown in Table 2. The large number of variables and exclusion of some states in this model made the results difficult to interpret. The only factor that emerged as significant in this model was the level of urbanisation, which had a positive relationship with FDI, significant at the 5% level.

Table 2  FDI approvals per capita (1991–2002) regressed on a range of economic, social and cultural variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Alpha/Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>9068.026</td>
<td>0.422</td>
<td>0.679</td>
</tr>
<tr>
<td>GDP per cap</td>
<td>-0.226</td>
<td>-0.575</td>
<td>0.574</td>
</tr>
<tr>
<td>GDP</td>
<td>-0.002</td>
<td>-0.562</td>
<td>0.582</td>
</tr>
<tr>
<td>UNEMP</td>
<td>1075.754</td>
<td>0.687</td>
<td>0.503</td>
</tr>
<tr>
<td>EMP</td>
<td>-141.737</td>
<td>-1.166</td>
<td>0.262</td>
</tr>
<tr>
<td>LIT</td>
<td>-112.312</td>
<td>-0.668</td>
<td>0.515</td>
</tr>
<tr>
<td>URB</td>
<td>194.65982</td>
<td>2.539</td>
<td>0.023</td>
</tr>
<tr>
<td>HOUSE</td>
<td>-944.357</td>
<td>-0.385</td>
<td>0.706</td>
</tr>
<tr>
<td>REL1</td>
<td>5439.925</td>
<td>0.341</td>
<td>0.738</td>
</tr>
<tr>
<td>REL2</td>
<td>1945.682</td>
<td>0.125</td>
<td>0.902</td>
</tr>
<tr>
<td>REL3</td>
<td>4890.418</td>
<td>0.278</td>
<td>0.785</td>
</tr>
<tr>
<td>REL4</td>
<td>941.522</td>
<td>0.055</td>
<td>0.957</td>
</tr>
<tr>
<td>REL5</td>
<td>8926.271</td>
<td>0.340</td>
<td>0.738</td>
</tr>
<tr>
<td>REL6</td>
<td>402899.777</td>
<td>1.284</td>
<td>0.219</td>
</tr>
</tbody>
</table>

It is evident from these results that the one overwhelmingly important factor in attracting overseas investment is urbanisation. This has a high beta and the effect is significant at the 5% level, even with a relatively small number of datasets and a large number of other independent variables being considered. Other factors had more limited impacts. FDI flows were positively correlated with unemployment and negatively correlated with employment, showing an attraction to areas in which pools of surplus labour were available. Perhaps more surprisingly, literacy had a negative effect on FDI although none of these results were statistically significant. It is, however, possible that literacy alters relations between labour and capital by providing more potential entrepreneurs who may compete for available labour and resources.

None of the religious variables appeared to be significant in this model and all six of these variables had a positive correlation with FDI (suggesting that there is a negative relation for non-religious populations and followers of local minority religions). It therefore seems unlikely that cultural or religious differences between India and other countries have a major effect on FDI, as this would probably be reflected in different patterns determined by the religious make-up of the population. The effects of cultural distance therefore seem to be unimportant.

As a test of the robustness of our findings, FDI was regressed on each of the variable in turn in simple regressions (not shown in detail). This confirmed our results, as urbanisation again emerged as the most significant, with a beta value of 166.14, suggesting that for every 1% of the population that become urbanised the entire
population will receive 166.14 rupees (US$ 3.82) per head in additional FDI. This time the results were significant at the 0.1% level.

The correlation between FDI and literacy rates was significant at the 10% level \( (p = 0.066) \), with a beta-value of 136.74, suggesting that increasing literacy also increases the ability to attract FDI. However, it must be pointed out that this correlation entirely disappears \( (\beta = -59.01) \) when urbanisation is added as a second explanatory variable. It appears that literacy is only associated with FDI to the extent that it is associated with the development of cities.

Average household size was negatively correlated with FDI approvals. This may be because large households reflect the age structure of the population with larger households containing more children and elderly dependents, who are not available for work. However, it is also evident that this is not offset by any increase in availability for work that might be expected from the surplus labour force created by larger families.

Turning to religious variables, a more mixed picture emerges. When considered in isolation from other factors, most of the beta values become negative but remain insignificant. There are only two exceptions to this. The percentage of Hindus was positively correlated with FDI flows, with a \( \beta \) value of 4764.45 (indicating an increase in FDI per head of 4,764.45 Rupees or US$ 109.63 for each percentage point increase in the Hindu population) and was marginally significant at the 10% level. Given the small number of states and the high percentage of Hindus, this suggests that there may be a real relationship which might repay further investigation. One possibility is that India’s relatively low level of FDI is disproportionately derived from Non-Resident Indians (NRIs) investing in the country and that Hindu NRIs are more likely than other Indians to invest in areas in which they have social or family ties.

The only other religious group with a positive relationship with FDI was the Jains \( (\beta = 539,897.9, p = 0.007) \). However, it must be observed that Jains only account for less than 1% of the total population and are concentrated in urban areas. Although a positive relationship with FDI still appears likely when other variables are taken into account (Table 2: \( \beta \) value = 402,899.78) the result does not appear to be significant \( (p = 0.219) \) and is most likely to be explained on the assumption that Jainism is a proxy for some degree of urbanisation not captured by the census figures or that the Jains avoid working in some domestically owned industries.

5 Conclusions

Two conclusions can be drawn from this study. Firstly, in the Indian context, FDI is economically beneficial, with states with higher levels of FDI experiencing higher growth rates as a result. This confirms the findings of Marwah and Tavakoli (2005) that FDI is good for growth, although it does not necessarily contradict the findings of other authors that FDI does not benefit all sections of the population equally or necessarily means that the benefits of FDI spread beyond those businesses that are direct recipients. The benefits of FDI can be increased or the problems caused by a lack of FDI reduced by policies that encourage new business start-ups generally, which contrasts with the findings of Vachani (2005), who found that larger FDI projects created more growth. It is, of course, likely that small business start-ups will not be FDI-funded, although they may be in a position to do business with FDI-funded enterprises. Policies to increase literacy are also beneficial in securing the gains to be made from FDI and other investment.
The second conclusion is that very few social, cultural or indeed economic factors actually matter in attracting FDI. The level of urbanisation matters to the almost total exclusion of all other factors. Independent of wealth, family structure or cultural background, cities attract investment and the countryside does not. The way to attract investment therefore seems to be to encourage people to leave the countryside and move to towns. This may itself have further policy implications, as the growth of the megalopolis, already far further advanced in India than in many other countries will certainly continue to have far-reaching effects, desirable or undesirable, on social systems, behaviour and education. It may also be prudent to examine the case for seeking to develop alternative, indigenous sources of investment for rural areas.

Much further research is needed beyond the confines of this very brief study. Further work is needed on the effects of social factors, especially education, in enabling countries and regions not only to attract but also to make the best use of FDI. It is also important to examine the effects of FDI on social structures and wealth distribution in the large urban areas attract the largest share. Finally, it may be of interest, from the social-historical viewpoint, to examine the question of whether NRIs play a large role in the flow of FDI to India and, if so, whether the cultural or religious background of NRIs plays a part in their investment decisions.

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