

the ends). This excessive preoccupation with the means very soon results in confusing the means with the ends. Here are some illustrations.

(1) Procedures are means to some end. Since the end is not operationally made clear, procedures become ends in themselves. Conforming to procedures becomes the end objective of all administration.

(2) In formulating a plan, budgeting is a means to some end. Again, since the end is not operationally defined, budgeting and spending the allocation become ends in themselves. Achievement is assessed on whether the allocated budget was fully spent or not.

(3) Government is a means to some end. Again, in the absence of an operational definition of the end, government becomes an end in itself. The mere survival of the government is taken to be the measure of its success.

In the current context of the 'new industrial policy', consider the situation with foreign direct investments (FDIs). An FDI, clearly, is a means to some end. Our preoccupation, however, is with the amount of FDIs successfully approved; not on how much of the investment has been implemented; and least of all on what results have been achieved (i.e. on the ends for which the investments are only the means).

One can readily think of additional examples from other spheres of our life; for example, the role of ritual in religion. But the main thrust of my assertion should be clear.

Given this pervasive cultural trait of our obsession with the means and consequent losing sight of the ends, it is not surprising that even if the six prescriptions (listed by Wade) had been meticulously followed, they did not result in any 'Indian miracle'. That, clearly, was never perceived to be the end objective by any of the actors.

The lesson to draw should be clear. In the absence of any radical change in our cultural trait, one would be surprised if the 'new industrial policy' were to be any more successful than the 'old industrial policy'. After all, the same actors are involved, only in a new permutation. Earlier, the public sector was the favourite son and was enjoying various exclusive privileges. Now, the private sector is the favourite son enjoying various exclusive benefits. The public sector has not only fallen from grace, but is being positively discriminated against. Whatever national technological capabilities had been built up over the years – especially in design, consultancy, and management – are now being allowed to wither away due to neglect and absence of support. One has to be a stubborn optimist to see any 'Indian miracle' taking shape on the horizon.

- 1 See the interview with Mr Ganesan in *The Economic Times*, Bangalore, 8 June, 1993, and the editorial in the same issue
- 2 Wade, R., *Governing the Market Economic Theory and the Role of Government in East Asian Industrialization*, Princeton University Press, Princeton, 1990.
3. Statement on Industrial Policy, 1991, Para 24
4. *India Today*, July 31, 1991, pp 24–25.
- 5 US Congress OTA, *Multinationals and the National Interest Playing by Different Rules*, OTA-ITE-569, Govt Printing Press, Washington DC, 1993, the statistics about MNEs are taken from this publication.
6. *ibid*, pp. 2–3.
7. *ibid*, p. 4
8. *ibid*, 'Foreword'.
9. *ibid*, p. 2.
10. *ibid*, p 4
11. Wade, R., 1990, p. 380. (ref. 2, above)
12. *The Economist*, 1993, Oct 2, p 29
13. See for example the extended coverage of the World Bank Study *The East Asian miracle* in *The Economist*, 1993, Oct. 2, pp 29–30.
14. The description of Taiwan's experience and the statistical facts are taken from Wade, R., 1990, pp 38–51, pp 84–85, pp 99–108.
- 15 Wade, R., 1990, pp 350–379.
- 16 See the account of the World Bank study cited in 13 above
- 17 Wade, R., 1990, p 359

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## Survey of Indian computer professionals/students in USA about taking up employment in India

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Contrary to expectations, a majority of the respondents want to return and take up employment. Two other important points emerged in the survey. First, the salary expectations for many of the respondents who want to return are not too far off what are currently being offered by many companies. And secondly, most persons want to get an offer while in the US, and are unwilling to return without an offer in hand. Other important factors mentioned for return-

ing are help in housing, travel opportunities (which most companies offer), and career opportunities (which are good).

The survey clearly shows that there is a substantial pool of highly trained professionals in USA which can be tapped by the computer industry to alleviate the current manpower shortage and to bring in new expertise. An important point that the survey brings out is that to tap this pool, *the industry*

*will have to actively recruit in the US and make offers to these professionals while they are in the US.* One of the complaints was that if people inquire with companies about positions, they either do not get a reply or get a reply saying that 'contact us after you have returned'. This needs to be changed and offers have to be made in the US. If the companies want, this can be done easily. Besides a careful evaluation of *vita*, with many companies having some base

## COMMENTARY

**Table 1.** Age distribution of respondents

Age	Percentage
20-25	35
25-30	41
30-35	19
35+	5

**Table 2.** Academic background of respondents

Degree	Percentage
MS in CS	45
MS in EE/ECE	19
PhD in CS	14
Bachelors	8
Others	14

**Table 3.** Work experience of respondents

Yrs of work experience	Percentage
0	26
0-1	20
1-3	27
3-5	14
5-10	12
10+	1

in the US and many senior persons visiting the US frequently, approaches like 'telephone interviews' can be used to evaluate candidates and make offers while they are in the US. The possibly low 'accept ratio' of applicants from the US need not be a deterrent in recruiting there, as in the computer industry even in India the accept ratio is low. Hence, if companies recruit in India despite the low accept ratios and low retention rates, recruiting in the US will not be inconsistent with the current situation.

In addition, many people also stated outside the survey that they want 'interesting work' and fear that the jobs may be unexciting and low-tech. This implies that these professionals have to be offered exciting work, career and travel opportunities consistent with their expertise. This in itself is not a problem as most large companies do offer these. However, the *image* of the industry consisting of 'body shoppers' and 'assemblers' (formed by 'old knowledge' and interaction with the people employed with Indian companies and working on small tasks in the US) needs to be dispelled by appropriate measures and the professionals need to be convinced that indeed there is a change from the past in this industry.

**Table 4.** Salary expectancy

Yrs of exp	6-8 K	8-10 K	10-15 K	15 K+
0	27	33	22	16
0-1	13	25	27	35
1-3	10	16	22	48
3-5	5	5	28	62

**Table 5.** Other desirables factors

Factor	Percentage
Accommodation	42
Transport	29
Health	25
Travel	20
Work freedom	12
Career	11

**Table 6.** Major reasons for returning

Reason	Percentage
Parents/relatives	70
Motherland	56
Career growth	20
Indian culture	13
Raising children	6

**Table 7.** Major reasons for not returning

Factor	Percentage
Economic	52
Political turmoil	34
No access to latest technology	20
Job satisfaction	19
Corruption	18
Living conditions	13
Research environment	10

Further details about the survey are given later in the report. The main points that the survey brings out are as follows:

- Most respondents were in the age group 20-35; about 75% were under 30.
- Only about 25% of the respondents had no work experience; the rest had 0-10 years of experience.
- About 70% respondents had M.S. degrees (mostly in CS/EE/ECE), and about 15% had Ph.D. degrees.
- Over 75% respondents said that they will return to take up employment in Indian industry, given a reasonable offer. About 11% said they do not want to return, and the rest were not sure.

- Most of the respondents who said they want to return indicated that they will return only if the offer is made in the US (i.e. will not return to India and then look for a job). Over 75% said that they must have an offer in hand before returning to India.
- The salary expectations of respondents increased with years of experience. For people with no experience, the salary expectancy is mostly in the range 6 K-10 K per month, while for people with many years of experience it is over 10 K per month.
- Of the 'other desired factors' in the offer and work environment, the most commonly listed factors are accommodation, transport, health, work-freedom, career opportunities, and travel.

### Further details

The survey was conducted through e-mail. A questionnaire, along with some background information, was posted in relevant news groups in US (which also reach Europe and Australia). The filled questionnaires were mailed through e-mail. Readers were encouraged to respond regardless of whether they were for or against the idea of returning, to avoid any bias in the survey.

### The questionnaire

The questionnaire that the respondents were asked to fill is given here. A preamble was attached to it to give the background, some information about the current status of Industry in India, and motivation for the survey.

- Your age:
- Highest degree with discipline and year of completion:
- Current occupation and employer:
- Years of work experience in US:
- Given a reasonable (and realistic) offer, would you return:

6. Major reasons for returning (just list them; no essays)
7. Major reasons for not returning  
(Answer 8–12 if you answered 'Yes' in 5)
8. Is it necessary for the offer to be made before you return.
9. Will you return if you have no offer in hand at the time of return.
10. What salary would you want (be realistic)
11. What would you want in your work environment.
12. What else do you want in your offer — just list (be realistic).

### Survey results

The response to the survey was tremendous. Within 3 days of posting of

the questionnaire, over 100 responses were received. As the huge response of the survey was adding tremendously to the e-mail traffic, other potential respondents were informed through network posting not to send any more responses. Finally, about 175 surveys were received and compiled.

Of the 175 respondents, 76% said that given a reasonable offer they will return, 11% said that they will not return, and 13% were not sure. Of those who indicated a wish to return, an *overwhelming 77% said that they will return only if they had an offer before returning*

The tabulated results of most of the other important issues are given below. In the tables, all the responses are shown as percentage of the total res-

ponses. For issues relevant to 'returning', the numbers shown are percentages of those who indicated they want to return. In the table showing the salary distribution, the percentages are relative to the number of respondents of the appropriate age group. Finally, the percentages of those tables where more than one option can be listed (e.g. 'what is desired in the work environment') will not add up to 100.

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