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**INDIAN INSTITUTE OF MANAGEMENT
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PERCEPTION OF COMPUTERS IN THE INDIAN
INDUSTRY; A STUDY OF IMAGE AND
ATTITUDES IN TWO TEXTILE MILLS

by

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Perception of Computers in the Indian Industry:
A Study of Image and Attitudes in Two Textile Mills

Udai Pareek, Amitabha Ghose, and Dalpat Sarupria

INTRODUCTION

Computers have spread all over the world in a short period of time. Computers are being used by almost all countries, small or large, developed or underdeveloped. The various countries seem to compete with each other in developing the computer technology. During World War II, the first computer was manufactured by U.S.A. Within a short period of time they have installed about 200,000 computers in the world, half of which are in the country of their origin. Meanwhile other countries also started manufacturing small computers for their own use.

Computers took a long run to enter India. In 1955, the first computer was installed in the Indian Statistical Institute, Calcutta for research and development purposes. The second computer was installed after a gap of six years by Esso Standard Eastern Inc. Bombay in 1961. The first public sector organisation and the third in India was the Hindustan Aeronautics Ltd., Bangalore (1962) and the next was the Indian Institute of Technology, Kanpur being the first educational institution with a computer. The spread since then has been quite fast. According Prasad and Verma (1977) till 1975, 253 computers were installed in India. India has also started manufacturing computers. First Indian computer was acquired and installed by Jadavpur University, Calcutta in 1964.

Prasad, F. and Verma, P. Impact of Computers on Employment. The Macmillan Company of India Ltd., 1977, 181 p.

Although computers have been in demand, and there are distinct advantages of the computers, because of several factors the attitudes towards computers have ranged from very favourable to very unfavourable. This has been particularly in case of industries. The Standing Labour Committee suggested that computers might be used without any restrictions in educational, scientific and research institutions, statistical organisations of the central and state government and defence establishments. In the case of commercial and industrial establishments, whether in the private or public sector, and including consultancy services, the committee suggested certain restrictions. It was felt that the use of computers in these organisation should be based on prior consultation and agreement with the workers. It was also suggested that expert panels should decide the justifiable applications.

As Prasad and Verma (1977) have stated further computerisation is related to increased demand for computerised information coupled with better and quick performance. More than 75% of the organisations said that their objective for further computerisation would be to undertake more work on the computer. About 70% of them wanted computers to improve the quality and speed of performance. In the enterprise sector, both private and public, the reasons given were for the use of computers were: more work, speedy performance, production control, inventory management and financial analysis. In the government the major emphasis would be on more work and quicker performance. Educational institutions would also emphasis work, performance as well as saving of labour. In research establishments, the priorities

are somewhat different, better performance of work getting the top priority as the basic objective for further computerisation.

In industry computers have evoked a wide range of response. While some hail them as the panacea, some others decry them. Many managers, and certainly workers, have had misgivings about the computers, the use of computers may be adversely affected if these attitudes and misgivings are not taken into account.

OBJECTIVES

With this background, an exploratory study was undertaken with the following objectives.

1. to measure the attitudes of people at various levels towards the use of computers in industry,
2. to find out what different levels of managers and other employees think about computers, and
3. to develop attitude scales to measure attitudes towards computers, and some other relevant instruments

SAMPLE

A total of 59 employees from two textile industries (called X and Y) of Ahmedabad were selected for this study, 41 from industry X and 18 from industry Y. Industry X is A grade, quite new, recently constructed, well equipped, using modern technology and situated at the outskirts of the city, whereas the other (Y) is B grade located in the main city, using old technology and looks very old. The purpose to select two different types of industry was to compare how one is different from the other, and what environmental factors contribute to the formation of favourable or unfavourable attitudes toward computers.

There were good responses from industry X; the management was quite cooperative and encouraged employees to directly mail their responses to the investigators. Responses were poor from the other industry inspite of personal visits and individual persuasion. In this case questionnaires were distributed during the first visit to the different departments, and the purpose of the survey was explained to them. Departmental heads volunteered to get the questionnaires completed but did not succeed.

METHODOLOGY: INSTRUMENTS

The following instruments were used to collect data.

1. Your Image of the Computer

Individuals differ in their perceptions of the computers. Partly the perceptions are influenced by the mass media. Recently there was an article in the local newspaper mentioning that programmers in the Physical Research Laboratory Computer Centre have prepared a programme of preparing horoscope on the basis of the date, time and place of birth. Such communications create different images of the computers. Measurement of such images is a very difficult task. For this an open-ended questionnaire was used in which respondents were asked to give 15 or more adjectives to describe their images about the computers. These could be words, phrases, or short sentences (see Appendix 1). This questionnaire was given first, to get their images before they read other questionnaires and instruments,

2. Perception of Computers

Perception of the computers depends upon the background of the respondent. In industries persons differ in terms of their skills, area of work, knowledge, levels, and personality dimension. Usually executives think that computers are very useful, time saving, very fast, accurate etc., but the lower level employees may think that this is a very complex and prestigious technology. To get the various perceptions about computers, a questionnaire was designed (see Appendix 2). Some bipolar adjectives were collected from the literature, interviews ^{and discussed} with experts and the computer users. They were also requested to suggest some more adjectives. All these were put together and edited to get a final list of 20 bipolar adjectives.

Respondents were asked to check each pair of adjectives on a 7th point scale. Scores for each adjectives range from favourable (7) to unfavourable (1). Scores were altered in case of negative adjectives. The total scores for each respondent was calculated. One can get a maximum score of 140 and minimum score of 20. Higher the score the more is the favourable perception about computers and vice-versa.

3. Attitude Towards Computers

Thurstone (1946) defines an attitude as the degree of positive or negative affect associated with some psychological object. An individual who has associated positive affect or feeling with some psychological object is said to like that object or to have a favourable attitude towards the object. An individual who has associated negative affect with the same psychological object would be said to dislike that object or to

have an unfavourable attitude towards the object.

No instrument was available to measure attitude toward computers in India. So an instrument was prepared.

The usual steps in preparation of Thurstone Scale were followed. About a hundred statements were collected from the literature, computer users, students and the faculty of IIM, Ahmedabad. After editing the statements for ambiguity, overlap, relevance etc. a list of 60 items was prepared for the scale. These statements were rated by 60 judges (experts) to indicate to what extent a particular statement reflected an extremely favourable (11) or extremely unfavourable (1), attitude or an intermediary degree of favourableness toward computers. These responses were tabulated to calculate scale values and Q-values (variance in judgment) for each statement. Then the items were arranged in the descending order of the scale values. The two parallel forms (A and B) each containing 20 items were prepared. In both the forms scale values range from 1 to 10.5, with an interval of .5 between two items. (See Appendix 3 and 4).

Respondents were given the list of statements to check with which they agreed. The total attitude score for a respondent was given by the total of the scale values of all the statements he checked (agreed with). On the scale one the minimum score one can obtain is 1 and maximum 115 score.
 / Higher the score more favourable the attitude toward computers and vice versa.

4. Preferred Areas of Application of the Computers

Computer can be used for various purposes, since it is an information processing instrument. However, it is necessary to know what people think computers can be used for. On the one hand in country large manpower is available, which is either unutilized or underutilized. On the other hand, there are some areas in which the use of computers may be almost essential. Ideas of the use of computers certainly differ. In order to get these ideas a list of 27 different possible areas was prepared (see Appendix 5) in which computer is and can be used. Respondents were asked to rate each of these areas on a 5-point scale, ranging from essential (5) to unnecessary (1).

5. Reasons for Non-use of Computers.

With all the potential of the computers very few industries or organisations use them enough. It may be very useful to know why people do not use computers. A questionnaire was designed to find out the reasons of non-use of computers. A list of 25 reasons for non-use of computer in Indian situation was prepared (see Appendix 6) for this purpose.

Respondents were asked to rate each reason on a 4-point scale ranging from very certain (3) to not applicable (0) for their own industry, as well as for industry in general. This was done to find out if the reasons for the two (own industry and industry in general) were different. The latter may be an indirect indicator of attitudes towards the computer.

6. Social Reaction Inventory

Attitudes towards computers may also be influenced by the personality of the individual. Three relevant personality variables in this connection were selected to test the hypothesis that personality factors influence attitudes and perceptions. These variables are: locus of control, ambiguity tolerance, and self-disclosure. Available instruments to measure these variables were used.

Social Reaction Inventory (SRI), developed by Rotter (1966) measures generalised beliefs in internal versus external control of events. This inventory is based on Rotter's theory of social learning (1954). He stated that the effect of reinforcement is not a simple stamping-in process, rather it depends on the subject's perception of relationship between action and its outcome. If the outcome is conceived to be contingent upon one's own behaviour, the expectancy of relationship between the individual's strivings and the outcome is strengthened. As a result, the individual comes to believe in 'internal control'. However, if the outcome is conceived to be a matter of 'chance' or 'luck', the individual tends to believe in 'external control' and in such an event reinforcement adds nothing to strengthen the expectancy. As a general principle, "internal control refers to the perception of positive and/or negative events as being a consequence of one's own actions and thereby under personal control; external control refers to the perception of positive or negative event as being unrelated to one's own behaviour in certain situations and, therefore, beyond personal control (Lefcourt, 1966).

This inventory consists of 29 items including 6 fillers (See Appendix 7). Items are generalised in nature, culture-free, and with very low social desirability. Each of these items consist of a pair of alternatives. Respondents were asked to select the one alternative from each pair which represented their belief. The total score an individual can get on this inventory ranges from 0 to 23. Higher the score more the external control and vice-versa.

The individual who has strong belief that he can control his own destiny is likely to a) be more alert to those aspects of the environment which provide useful information for his future behaviour, b) take steps to improve his environmental conditions, c) place greater value on skill or achievement reinforcement and to be generally more concerned with his ability, particularly his failure; and d) be resistive to subtle attempt to influence him (Rotter, 1966).

The inventory has high reliability as estimated by three different methods (split-half, Kudar-Richardson, and test-retest) to be .65 to .79, .69 to .73 and .55 to .83 respectively. The overall validity for this inventory was also very high.

7. General Opinion Survey

General Opinion Survey (GOS) was developed in the Department of Psychology, Aligarh Muslim University to measure intolerance of ambiguity. The concept denotes a dimension of personality popularised by the philosophy of existentialism. In existential philosophy the term

ambivalence has been used not in a psychodynamic but in an onto logical sense, meaning thereby that man searching for the essence of existence may find that the existence is essentially ambiguous and can be described only in antithetical and paradoxical terms.

Adorno (1950) found that the authoritarians and prejudiced were intolerant of the existence of ambivalent feelings and ambiguous situations while the non-authoritarians were found tolerant of ambivalent feelings and of ambiguity inherent in a situation. Brunswik (1949) advanced the concept of intolerance of ambiguity as an alternative for the psychanalytical concept of repression to explain the idealization of parents by the authoritarians and the ambivalence of the non-authoritarians towards them.

This inventory consists of 24 items. A respondent simply checks his agreement or disagreement with each item. The items are in both directions (showing tolerance as well as intolerance of ambiguity). Statements showing agreement with items of intolerance and disagreement with those of tolerance are given 1 score each.

Reliability with split-half method has been found to be .70. Item validities were also established. The inventory is given in Appendix 8.

An individual can score a minimum of 0 and a maximum of 24. Higher the score more the intolerance for ambiguity and vice-versa.

8. Interpersonal Yoga

A person can know himself only through the process of making himself known to others (Jourard, 1963). The process of making oneself known to others is called self-disclosure. Block (1952), and Block and Bennett (1955) demonstrated that what a person told others about himself was a function of the role he had in relation to the others. Jourard (1963) suggested that accurate portrayal of the self to others was an identifying criterion of healthy personality, while neurosis is related to inability to know one's "real self" and to make it known to others. Researches in this area also suggest that self-disclosure from one person is the most powerful stimulus to self-disclosure from the other.

This test measures self-disclosure dimension of an individual in the outside world. This scale, originally developed by Jourard (1971), consists of 60 items in six different areas as: attitudes and opinions, tests and interests, work (or studies), money, personality and body. Out of which thirty items were selected in such a way that each of these areas get equal weightage. Sequence and the content of the items were kept as such (See Appendix 9).

Reliability computed by split-half method was found very high (.94 by Jourard, 1971).

Respondents were asked to indicate in which areas they disclose how much to others. An item are scored 2. The respondent says that he talks in detail, 1 if he talks in general terms, and 0 if he does not discuss this matter with anybody. Total score for each dimension were computed. Higher the score an individual has, the more he discloses himself. Self-disclosure scores appears to be a fairly direct measure of the "closeness" between people.

RESULTS

1. Overall Comparison Between Two Units

Data from these two industries were analysed separately. Table 1 presents industry-wise mean scores and standard deviation on some personality characteristics, attitude and perception of computers.

Result indicates that mean scores for perception of computers, attitude towards computers, intolerance for ambiguity and external locus of control are almost the same in both units. This shows psychological similarity.

However, in order to confirm this detailed analysis was made of some variables. Let us take perception of computers. This dimension consists of 20 bipolar adjectives. Means for all these twenty adjectives for each of the two computed and plotted. The curves for both industries for all the 20 adjectives were almost identical. This further showed psychological similarity between the two units inspite of their external differences.

It may be interesting to note both these units have their own EDP (Electronic Data Processing) unit and use IBM computer either in Ahmedabad or in Bombay for their sales analysis, quality control, budget control, financial accounting, account receiving, loom programming, designing new products etc.

In view of these psychological similarities or similarity in the use of computers, the research design was modified. It was thought more useful to examine difference according to levels of the organizations. For final analysis data from the two units were combined and classified according to the various organizational levels. The levels used to analyse data are shown in Table 2.

Table 2 indicates that most of the respondents were drawn from lower level like: clerks and staff members, followed by Departmental Heads. In spite of very small size in category one, was not combined with any other, because of differences in opinions.

2. Images and Perception of the Computer

Perception of the computer varies from individual to individual and from level to level in an organization. Some individuals have very positive image, while some others have a negative image about computer. Usually those whose work involves the use of the computer or where the computer can help or support their activity, they are likely to have its positive image. On the other hand, if the use of the computer results in the change of role, change^{of}/the nature of work, requires independent judgement etc., people will have its negative image.

The adjectives used for the computer were analysed in terms of their positive, neutral, or negative images. A total number of 73 adjectives were used by the participants. Out of these 47 were positive, 6 neutral, and 20 negative. These are given in Table 3 in the same order (positive, neutral and negative). One conclusion can be drawn from the frequency of adjectives, that more people in industry have more positive image about the computer.

The first most frequently mentioned positive adjectives are : fast, accurate, useful, economical, and profitable. The two most frequently mentioned neutral images are that the computer requires special skills and that it is complex. These are two negative images with high frequencies that the computer creates unemployment and that it is costly if enough work is not involved. The frequencies according to the levels are given in Table 3.

As already mentioned, 20 Semantic differentials were used to study perception of the computer. Figure 1 gives the profile of the two units, which are very similar. On four scales the mean values are in the middle parts of the scale, showing not clear and committed perception on ^{these} (dispensable-indispensable, varied-repetitive, easy-difficult, and extensive-limited).

Table 4 shows the percentages of responses on the various points on the Semantic Differential scales by respondents from the five levels. Analysis of the data showing that most of the employees from the lower levels like Deputy / Asst Heads, Senior Assts/Supervisors/ Section Heads, and Staff members/Clerks have very positive perception of the computer. Overall responses were positive on the following scales: inaccurate-accurate , wasteful-economical, unprofitable-profitable, non-prestigious-prestigious, slow-fast, crude-sophisticated, unreliable-reliable, useful-useless, creates problems-solve problems, passive-active, limited-extensive, unfaithful-faithful. The perception of

Directors/Executives and Departmental Heads, is not as positive as that of the lower level employees.

3. Reasons of Nonuse of Computers

The respondents were given a list of reasons for non-use of computers in industry, and were requested to indicate which of the listed reasons were true of industry in general, and their own unit in particular. Percentages of responses from all the 5 levels on the various mentioned causes are given in Table 5.

Most of the deputy and asst. heads of the divisions felt that some of the reasons like lack of technical skill and expertise for the maintenance, obsolescence of skill among concerned employees ~~in~~ job or job opportunities, becoming dispensibles it may go wrong which may not be detected, high cost, lack of skill to understand the reports generated by the computer, centralised information system which leads to powerlessness etc. are certainly true for industry in general, but not so for their own industry. All employees agree with the reason that the computer requires change of work habit, whereas Directors/ Executives do not agree with it. Directors/Executives and the Clerks agree that non-availability of technically sound person to handle and maintain the computer is hindering its use, whereas others (middle level) do not agree with them. As far as the high cost is concerned,

every body has the same fear. Computers will not reduce the importance of top management, but the skilled workers, and clerks feel that they will lose their importance in decision making. To some extent this gives us a clue about the negative attitude of persons at lower levels in industry.

Departmental Heads, and Deputy/Asst Heads perceive that the Computer will take away their power in general, but not in their own industry. Supervisors/Senior Assts/Section Heads are doubtful about other industry, but this will be true in their own industry if they centralise the information system. Most respondents agree that anti-western feelings may be one reason for non-use, that although the computer can be considered as an essential tool for industry, but it has been foisted by the western countries, mainly the computer firm.

Employees of all the levels believe that availability of manpower does not warrant the use of computer in general, but in their own industry they are doubtful. Directors and Executives realise that the feeling that those who deals with computer will become more powerful, results in its non-use in general industry, but not in their own industry, whereas other employees are doubtful about this. Directors/Executives and Clerks feel that overall production cost will go up if they introduce computer. Most of them are either not aware or doubtful about it. People are afraid of the computer, because of the belief that it reduce ~~exp. cost~~. Here also, people from all the levels have the same opinion except Departmental Heads.

4. Areas of application

People have different opinions about the utility of computers for different purposes. Table 6 gives the percentage of opinions of the respondents about the applicability of the computers for different purposes. There seems to be a good deal of agreement that computers can be used for minimising the cost of production, maximising profit, accuracy in technical work, automation of technical work, getting things done in time, preparation of wage bills, production scheduling and search and retrieval of information. However, there are some differences in the opinion at different levels. For example, top management believe that computers are either unnecessary or are not much useful for making new designs for products, clerical work, selection of employees, educational programmes, and publicity and advertisement, whereas people at other levels think that they have use in these areas. In fact, people at the second and third level believe that computers can be very useful for clerical work, and people at the lowest level think of them as essential. Similarly, top management seems to feel that computers are unnecessary for job costing and routine accounting, whereas people at the second and third level feel that they are very useful. People from most levels agree that computers are not necessary and much useful for publicity purposes. There are differences in opinion of people about the application of computers. These differences can be seen from Table 6.

A large number of respondents from the lowest level feel that computers may be essential for decision making, maximum utilization of available resources, making use of latest management techniques, monitoring of production processes, search and retrieval of information and timely completion of work.

5. Correlates of images of and attitudes towards computers

Data collected on various aspects were pooled for all the respondents and intercorrelations were computed. Table 7 gives the inter-correlation matrix. As far as the overall perception of computers is concerned, only significant correlations are with some aspects of self-disclosure. Three aspects of self-disclosure (viz. tests and interest, personality, and body) have negative correlation with overall perception of the computer. It would mean that people who are high on self-disclosure have negative perception of computers. Persons who are high on self-disclosure are more keen in using personal experiences and interpersonal interaction. Self-disclosure is an interpersonal orientation, and low score on self-disclosure is likely to indicate the disinclination of an individual to meaningfully interact and confide in people. Such people are likely to be happier with a mechanical device like the computer. Other aspects of self-disclosure have also negative correlation with the overall perception of computer. However, it is interesting to note that attitude towards computers has significant negative correlation only with one major aspect of self-disclosure, i.e., self-disclosure about body.

The other coefficient of correlation which is negative and rather high is with disclosure on tests and interests. Attitude towards computers has significant positive correlation with intolerance for ambiguity. The higher the intolerance for ambiguity, the more positive the attitude towards computer. This is quite understandable. Those who are uncomfortable with ambiguity prefer a device like the computer which has no ambiguity at all.

Overall perception of the computer and attitudes towards computer, though correlated positively, do not have high enough correlation to indicate that they represent the same phenomenon. These are two different dimensions. One may be more general perception, whereas the other may indicate specific attitude.

There are various other correlations but they do not have much significance for the topic being studied. The tail portion of the matrix gives several significant correlations amongst the dimensions of self-disclosure. There are other interesting correlations but discussion of these may not be relevant in the present study.

Figure 1

Profile (Mean Values) of the Two Units
on Semantic Differential Scales

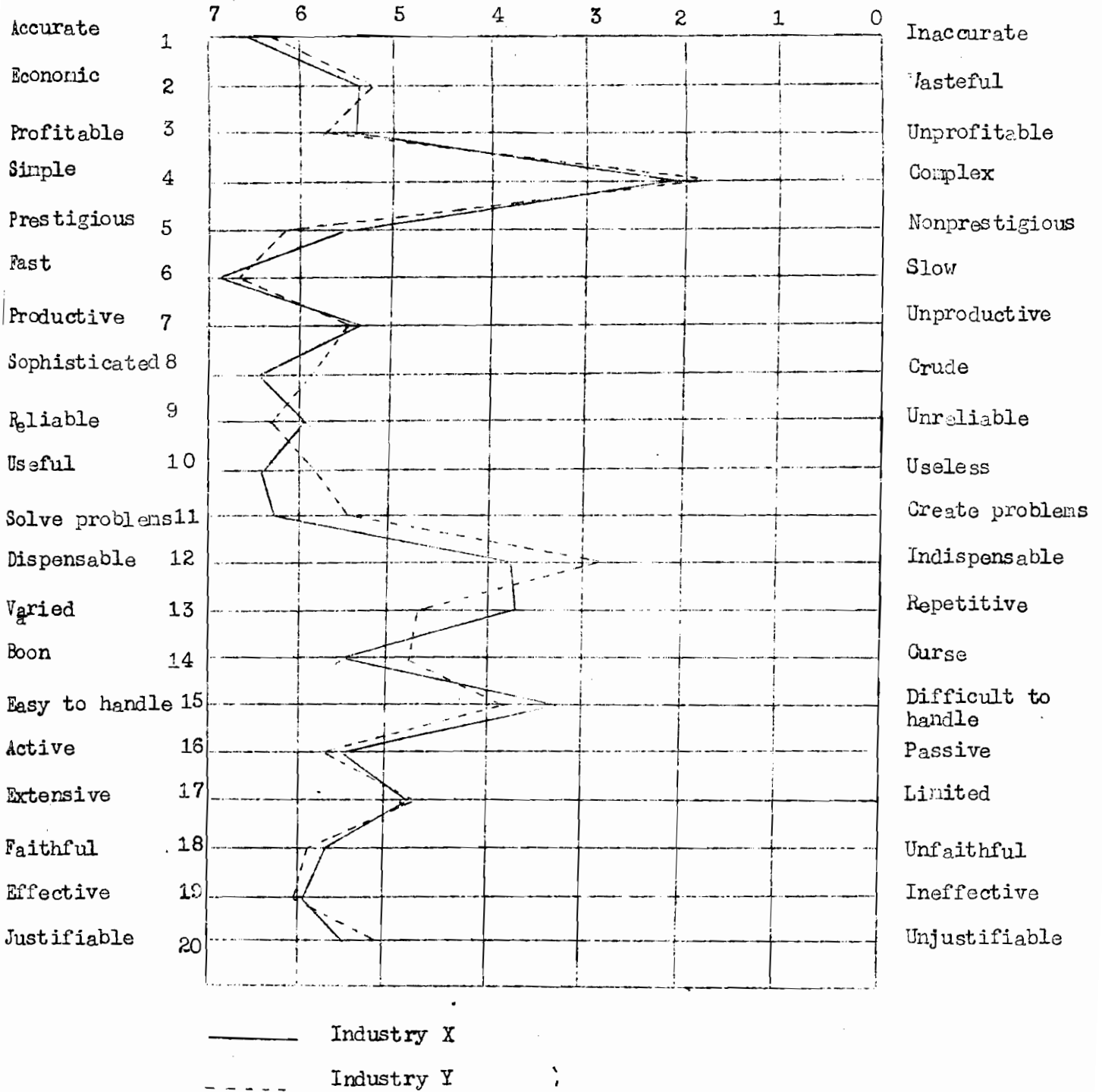


Table 1

Mean and SD for Overall Perception of Computers and Personality Variables in Two Units

Variable	Industry X (N=41)		Industry Y (N=18)	
	M	SD	M	SD
Perception of Computer	105.4	13.0	106.2	14.5
Attitude towards computer	68.4	18.6	68.8	12.1
Intolerance for Ambiguity	11.4	2.5	11.5	2.1
External Locus of Control	9.4	3.5	8.6	3.7
<u>Self-disclosure:</u>				
a. Attitudes and Opinions	6.3	1.8	4.8	3.3
b. Tests and Interest	4.7	2.1	5.0	2.2
c. Work (or studies)	4.3	1.8	3.8	2.5
d. Money	4.6	2.4	3.6	2.8
e. Personality	6.1	2.2	3.8	2.8
f. Body	6.6	2.8	5.3	2.7

Table 2

Level-wise Breakup of the Total Respondents

Sr.No.	Levels	Sample Size	Percentage
1	Director/Executive	1	1.7
2	Departmental Head	17	28.8
3	Deputy/Asst.Head	11	18.6
4	Senior Asst./Supervisor/Section Head	10	17.0
5	Staff members/Clerk	20	33.9
Total		59	100.0

Table 3
Frequency Distribution of Adjectives
Used for the Computer by Different Levels

Adjective	Levels					Total
	I	II	III	IV	V	
Fast	1	16	8	8	19	52
Accurate		13	9	4	18	44
Useful		7	3	5	11	26
Economical		4	4	4	13	25
Profitable		7	2	5	8	22
Time Saving		6	4	4	6	20
Requires special skill		8	1	6	5	20
Complex	1	6	2	4	6	19
Creates unemployment		5	5	4	2	16
Costly		9	5	2		16
Reliable	1	4		2	5	12
Solves problems		4		4	4	12
Productive		2	1		8	11
Prestigious	1	7		1		9
Not suitable for India		5	1	2		8
Has good memory		3	1	4		8
Limited use		1	1	3	3	8
Faithful		2	1	1	3	7

- I = Director/Chief Executive
 II = Departmental Head
 III = Deputy/Asst. Heads
 IV = Senior Asst./Supervisor/Section Heads
 V = Staff/Clerk

(Contd.)

Table 3 (Contd.)

	I	II	III	IV	V	Total
Justifiable		1	1	1	4	7
Sophisticated	1	2	1	1	1	6
Greater problems		2	1	1	2	6
Not suitable for small industries		2		2	2	6
Useful for research		3	1	2		6
Modern		1		3	2	6
Boon to humanity				1	5	6
Competent	1	1	1	2		5
Mechanical		3	1	1		5
Manpower saver		3		2		5
Indispensible		4			1	5
Repetitive		3		1	1	5
Active		1		1	3	5
Effective		1	1		3	5
Helpful			1	3	1	5
Good for large industry				1	4	5
Unreliable		3		1		4
Involves maintenance problems		3	1			4
Difficult to detect error		1		1	2	4
Quick for results			1		3	4
Systematic		2	1			3
Eliminates human error		1	1		1	3
Fashionable		3				3
Fantastic		2	1			3
Neat and clean		2	1			3

(Contd.)

Table 3 (Contd.)

	I	II	III	IV	V	Total
Record keeper		1	1	1		3
Difficult to understand		1		1	1	3
Bad for human memory			1	2		3
Reduces brain work			2		1	3
Makes things easy			1	2		3
Good for forecasts			2	1		3
Perfect calculator					3	3
Varied uses		2				2
Flexible		1		1		2
Easy to handle		1			1	2
Dispensable		2				2
Extensive		1			1	2
Logical		1		1		2
Useful for large data			1	1		2
Dependable			1		1	2
Involves voluminous work	1					1
Eliminates human judgment		1				1
Useful for engineering		1				1
Demanding		1				1
Simple		1				1
Time consuming		1				1
Genius		1				1
Superior		1				1
Error detector		1				1
Good for mass production		1				1
Good adaptability			1			1
Good for comparisons			1			1
Unproductive				1		1
Unjustifiable					1	1

Table 4

Percentage of Responses on the Various Points of the
Semantic Differential Scales by Levels of Employees

Adjectives	Level of people	Points of the Scale							Adjectives
		1	2	3	4	5	6	7	
Inaccurate	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	Accurate
	2	0.0	0.0	0.0	0.0	13.0	40.0	46.7	
	3	0.0	0.0	0.0	8.3	0.0	25.0	66.7	
	4	0.0	0.0	0.0	10.0	0.0	0.0	90.0	
	5	5.0	0.0	0.0	0.0	10.0	0.0	85.0	
Wasteful	1	0.0	0.0	0.0	0.0	100.0	0.0	0.0	Economical
	2	0.0	0.0	0.0	46.7	13.3	13.3	26.7	
	3	0.0	0.0	16.6	0.0	25.0	16.7	41.7	
	4	10.0	0.0	20.0	10.0	20.0	10.0	30.0	
	5	5.0	0.0	5.0	15.0	15.0	10.0	50.0	
Unprofitable	1	0.0	0.0	0.0	100.0	0.0	0.0	0.0	Profitable
	2	0.0	6.2	18.8	18.8	12.5	10.7	25.0	
	3	0.0	8.3	8.3	0.0	16.7	33.3	33.3	
	4	0.0	0.0	0.0	20.0	10.0	30.0	40.0	
	5	5.0	0.0	0.0	15.0	25.0	10.0	45.0	
Complex	1	0.0	100.0	0.0	0.0	0.0	0.0	0.0	Simple
	2	53.3	33.3	6.7	6.7	0.0	0.0	0.0	
	3	25.0	50.0	16.7	8.3	0.0	0.0	0.0	
	4	60.0	30.0	0.0	0.0	0.0	0.0	10.0	
	5	60.0	5.0	5.0	15.0	0.0	10.0	5.0	
Non- Prestigious	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	Prestigious
	2	6.7	6.7	0.0	6.7	13.3	46.6	20.0	
	3	0.0	8.3	0.0	25.0	8.3	16.7	41.7	
	4	0.0	0.0	0.0	20.0	0.0	20.0	60.0	
	5	0.0	0.0	5.5	5.5	27.8	5.5	55.6	
Slow	1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	Fast
	2	0.0	0.0	0.0	0.0	0.0	31.2	68.8	
	3	0.0	0.0	0.0	0.0	8.3	0.0	91.7	
	4	0.0	0.0	0.0	0.0	0.0	10.0	90.0	
	5	0.0	0.0	0.0	0.0	10.0	0.0	90.0	

Adjectives	Level of pe- ople	Points of the Scale							Adjectives
		1	2	3	4	5	6	77	
Unproductive	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	Productive
	2	13.0	0.0	0.0	6.7	26.7	90.0	33.3	
	3	8.3	0.0	0.0	16.7	16.7	25.0	33.3	
	4	10.0	10.0	10.0	30.0	0.0	20.0	20.0	
	5	5.3	0.0	0.0	5.3	15.8	5.2	68.4	
Crude	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	Sophisticated
	2	0.0	0.0	10.0	0.0	40.0	20.0	30.0	
	3	0.0	0.0	0.0	16.7	8.3	0.0	75.0	
	4	10.0	0.0	0.0	0.0	10.0	0.0	80.0	
	5	13.3	0.0	6.7	0.0	20.0	0.0	60.0	
Unreliable	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	Reliable
	2	0.0	0.0	0.0	6.7	33.3	26.7	33.3	
	3	0.0	0.0	0.0	16.7	8.3	16.7	58.3	
	4	0.0	0.0	0.0	10.0	0.0	40.0	50.0	
	5	5.0	0.0	0.0	15.0	0.0	10.0	70.0	
Useless	1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	Useful
	2	0.0	0.0	0.0	6.7	26.7	33.3	33.3	
	3	0.0	0.0	0.0	25.0	16.7	8.3	50.0	
	4	0.0	0.0	0.0	0.0	0.0	30.0	70.0	
	5	0.0	5.0	0.0	15.0	0.0	15.0	65.0	
Create problems	1	0.0	0.0	0.0	100.0	0.0	0.0	0.0	Solve problems
	2	6.7	6.7	0.0	40.0	20.0	26.7	0.0	
	3	0.0	0.0	0.0	0.0	16.7	33.3	50.0	
	4	10.0	0.0	0.0	10.0	0.0	30.0	50.0	
	5	21.0	0.0	0.0	15.8	5.2	21.0	36.9	
Dispensable	1	0.0	0.0	0.0	100.0	0.0	0.0	0.0	Indispensable
	2	31.2	0.0	0.0	37.5	18.8	12.5	0.0	
	3	16.7	8.2	16.7	25.0	16.7	0.0	16.7	
	4	10.0	30.0	10.0	20.0	20.0	10.0	0.0	
	5	28.6	7.1	7.1	42.8	0.0	0.0	14.3	

Adjectives	Level of pe- ople	Points of the Scale							Adjectives
		1	2	3	4	5	6	7	
Repetitive	1	0.0	0.0	0.0	0.0	0.0	100.00	0.0	Varid
	2	6.7	26.7	6.7	20.0	13.3	13.3	13.3	
	3	8.3	0.0	0.0	50.0	8.3	16.7	16.7	
	4	10.0	0.0	20.0	20.0	20.0	10.0	20.0	
	5	35.7	7.1	14.3	7.1	0.0	28.6	7.2	
Curse	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	Poorn
	2	0.0	0.0	0.0	42.8	14.3	28.6	14.3	
	3	8.3	8.3	0.0	8.3	8.3	41.7	25.0	
	4	11.1	0.0	0.0	33.3	0.0	44.4	11.1	
	5	6.2	0.0	0.0	6.2	12.5	18.8	56.3	
Difficult to handle	1	0.0	0.0	100.0	0.0	0.0	0.0	0.0	Easy to handle
	2	6.2	37.5	12.5	31.3	12.5	0.0	0.0	
	3	33.3	8.3	25.0	0.0	8.3	16.7	8.3	
	4	10.0	30.0	20.0	20.0	0.0	0.0	20.0	
	5	15.0	5.0	15.0	20.0	15.0	15.0	15.0	
Passive	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	Active
	2	6.7	6.7	0.0	6.7	33.3	40.0	6.7	
	3	8.3	8.3	0.0	8.3	8.3	25.0	41.7	
	4	0.0	0.0	10.0	20.0	10.0	30.0	30.0	
	5	0.0	0.0	0.0	10.0	8.0	15.0	70.0	
Limited	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	Extensive
	2	12.5	6.2	18.8	0.0	12.5	43.8	6.2	
	3	0.0	8.3	0.0	8.3	25.0	8.3	50.0	
	4	20.0	10.0	0.0	20.0	10.0	10.0	30.0	
	5	31.0	5.3	5.3	5.3	0.0	15.8	47.3	

Adjectives	Level of pe- ople	Points of the Scale							Adjectives
		1	2	3	4	5	6	7	
Unfaithful	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	Faithful
	2	0.0	0.0	6.7	13.3	20.0	40.0	20.0	
	3	0.0	0.0	0.0	0.0	10.0	20.0	70.0	
	4	10.0	10.0	0.0	10.0	20.0	10.0	40.0	
	5	5.3	0.0	0.0	10.5	5.3	15.8	63.1	
Ineffective	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	Effective
	2	0.0	0.0	0.0	6.2	12.5	62.5	18.8	
	3	0.0	0.0	0.0	8.3	33.3	41.7	16.7	
	4	0.0	10.0	0.0	0.0	0.0	40.0	50.0	
	5	5.0	0.0	0.0	0.0	0.0	25.0	70.0	
Unjustifiable	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	Justifiable
	2	0.0	0.0	6.7	13.3	26.7	33.3	20.0	
	3	0.0	0.0	8.3	8.3	41.7	8.3	8.3	
	4	10.0	0.0	10.0	0.0	30.0	20.0	30.0	
	5	21.1	0.0	0.0	0.0	0.0	15.8	67.1	

Table 5

Percentage of Responses about Reasons for Nonuse of
Computers in Industry.

G - Industry in general
O - Your own industry

Reasons for non-use of computers	Level of people	Ind-ustry in	Does not apply	Doubtful	Fairly certain	Very much certain
			0	1	2	3
1. Lack of technical skills and expertise for the maintenance and use of computer	I	G	0.0	0.0	0.0	100.0
		O	0.0	0.0	0.0	100.0
	II	G	14.3	50.0	7.1	28.6
		O	53.8	30.8	0.0	15.4
	III	G	16.7	16.7	16.6	50.0
		O	41.6	16.7	16.7	25.0
	IV	G	40.0	20.0	20.0	20.0
		O	60.0	20.0	0.0	20.0
	V	G	0.0	10.5	21.1	68.4
		O	15.8	15.8	36.8	31.6
2. High Cost	I	G	0.0	0.0	100.0	0.0
		O	0.0	0.0	100.0	0.0
	II	G	0.0	7.1	42.9	50.0
		O	30.8	7.7	23.1	38.4
	III	G	8.3	8.3	33.3	50.0
		O	33.3	25.0	33.3	8.3
	IV	G	0.0	0.0	40.0	60.0
		O	33.3	11.1	11.1	44.4
	V	G	5.3	26.3	26.3	42.1
		O	10.0	30.0	35.0	25.0
3. Fear of obsolescence of skill among concerned employees	I	G	0.0	100.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	7.1	50.0	21.4	21.4
		O	38.5	38.5	15.4	7.6
	III	G	8.3	25.0	41.7	25.0
		O	50.0	41.7	0.0	8.3
	IV	G	0.0	40.0	40.0	20.0
		O	22.2	33.3	33.3	11.1
	V	G	36.8	21.1	26.3	15.8
		O	36.8	31.6	10.5	21.1

Reasons for non-use of computers	Level of people	Industry in	Does not apply	Doubtful	Fairly certain	Very much certain
			0	1	2	3
4. Ignorance about the potential use of computers	I	G	0.0	0.0	100.0	0.0
		O	0.0	0.0	0.0	100.0
	II	G	21.4	7.1	42.8	28.6
		O	30.8	38.5	30.7	0.0
	III	G	0.0	0.0	58.3	41.7
		O	33.3	16.7	41.7	8.3
	IV	G	0.0	30.0	20.0	50.0
		O	33.3	33.3	11.1	22.2
	V	G	5.3	36.8	31.6	26.3
		O	10.5	31.6	47.4	10.5
Fear of losing job and job opportunities	I	G	0.0	0.0	100.0	0.0
		O	0.0	100.0	0.0	0.0
	II	G	14.3	42.9	28.5	14.3
		O	46.1	46.1	0.0	7.7
	III	G	16.7	16.7	33.3	33.3
		O	50.0	16.7	16.7	16.6
	IV	G	10.0	50.0	10.0	30.0
		O	33.3	33.3	11.1	22.2
	V	G	21.1	36.7	21.1	21.1
		O	31.6	21.0	31.6	15.8
Fear of becoming dispensable	I	G	0.0	0.0	100.0	0.0
		O	0.0	100.0	0.0	0.0
	II	G	0.0	57.1	28.6	14.3
		O	38.5	53.8	0.0	7.7
	III	G	8.3	33.3	8.3	50.0
		O	41.7	25.0	8.3	25.0
	IV	G	10.0	60.0	10.0	20.0
		O	33.3	44.4	11.1	11.1
	V	G	23.5	29.4	35.3	11.8
		O	35.3	5.9	29.4	29.4

Reasons for non-use of computers	Level of people	Ind-ustry in	Does not apply	Doubtful	Fairly certain	Very much certain
			0	1	2	3
7. The belief that availability of manpower does not warrant use of computer	I	G	0.0	0.0	100.0	0.0
		O	0.0	100.0	0.0	0.0
	II	G	7.1	21.4	52.2	21.4
		O	30.8	38.5	23.0	7.7
	III	G	8.3	25.0	41.7	25.0
		O	25.0	33.3	25.0	16.7
	IV	G	0.0	20.0	40.0	40.0
		O	33.3	33.3	22.2	11.1
	V	G	16.7	11.1	38.9	33.3
		O	22.2	38.9	22.2	16.7
8. Non-availability of skilled persons to run and maintain the computer	I	G	0.0	0.0	100.0	0.0
		O	0.0	0.0	100.0	0.0
	II	G	28.6	35.7	14.3	21.4
		O	57.1	35.7	0.0	7.1
	III	G	16.7	58.3	8.3	16.7
		O	33.3	50.0	8.3	8.3
	IV	G	20.0	50.0	20.0	10.0
		O	66.7	0.0	22.2	11.1
	V	G	15.0	10.0	55.0	20.0
		O	25.0	30.0	30.0	15.0
9. Scale of operation being too small for computer	I	G	0.0	0.0	0.0	100.0
		O	0.0	0.0	0.0	100.0
	II	G	20.0	13.3	53.3	13.3
		O	35.7	50.0	7.1	7.1
	III	G	8.3	33.3	25.0	33.3
		O	16.7	41.6	16.7	25.0
	IV	G	0.0	40.0	20.0	40.0
		O	11.1	44.4	33.3	11.1
	V	G	11.1	22.2	55.6	11.1
		O	13.7	27.8	50.0	5.5

Reasons for non-use of computers	Level of people	Industry in	Does not apply	Doubtful	Fairly certain	Very much certain
			0	1	2	3
10. Technology of industry not requiring computer	I	G	100.0	0.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	20.0	26.7	40.0	13.3
		O	57.1	35.7	7.1	0.0
	III	G	50.0	25.0	15.7	8.3
		O	41.7	16.7	25.0	16.7
	IV	G	40.0	30.0	20.0	10.0
		O	22.2	33.3	33.3	11.1
	V	G	44.4	38.8	11.1	5.5
		O	52.6	36.8	0.0	10.5
11. Fear of role change	I	G	100.0	0.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	33.3	26.7	26.7	13.3
		O	42.9	35.7	14.3	7.1
	III	G	33.3	33.3	16.7	16.7
		O	33.3	41.7	16.7	8.3
	IV	G	10.0	50.0	10.0	30.0
		O	33.3	33.3	22.2	11.1
	V	G	38.5	46.1	15.4	0.0
		O	38.5	15.4	30.8	15.3
12. Feeling that those who work with computers will have a hold over others because of their specialised knowledge	I	G	0.0	0.0	100.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	20.0	33.3	40.0	6.7
		O	35.7	50.0	7.1	7.1
	III	G	16.7	66.8	16.7	0.0
		O	41.7	33.3	25.0	0.0
	IV	G	40.0	20.0	20.0	20.0
		O	33.3	44.4	0.0	22.2
	V	G	30.0	35.0	5.0	30.0
		O	15.0	40.0	20.0	25.0

Reasons for non-use of computers	Level of people	Ind-ustry in	Does not apply	Doubtful	Fairly certain	Very much certain
			0	1	2	3
13. Fear that computers would reduce free time and the tendency to work according to their convenience	I	G	0.0	100.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	13.3	46.7	26.7	13.3
		O	50.0	21.4	21.4	7.2
	III	G	11.7	41.7	33.3	8.3
		O	41.7	33.3	16.7	8.3
	IV	G	20.0	50.0	10.0	20.0
		O	55.6	11.1	11.1	22.2
	V	G	21.0	31.6	31.6	15.8
		O	36.7	21.1	21.1	21.1
14. Introduction of computers may require reorganization of the company	I	G	0.0	0.0	100.0	0.0
		O	0.0	0.0	100.0	0.0
	II	G	0.0	53.3	40.0	26.7
		O	28.6	21.4	28.6	21.4
	III	G	25.0	16.7	50.0	8.3
		O	25.0	41.7	25.0	8.3
	IV	G	10.0	20.0	50.0	20.0
		O	22.2	22.2	44.4	11.1
	V	G	5.3	15.8	15.8	63.1
		O	15.0	25.0	25.0	35.0
15. Feeling of inadequacy in the face of unknown powerful system	I	G	0.0	0.0	100.0	0.0
		O	0.0	0.0	100.0	0.0
	II	G	13.3	26.7	46.7	13.3
		O	42.9	35.7	11.3	7.1
	III	G	0.0	41.7	25.0	33.3
		O	50.0	0.0	33.3	16.7
	IV	G	0.0	40.0	30.0	30.0
		O	22.2	22.2	44.4	11.1
	V	G	22.2	50.0	16.7	11.1
		O	50.0	27.8	16.7	5.5

Reasons for non-use of computers	Level of people	Industry in	Does not apply 0	Doubtful 1	Fairly certain 2	Very much certain 3
16. Reduction in the importance of some people who are taking decisions	I	G	0.0	100.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	6.7	40.0	33.3	20.0
		O	42.8	28.6	21.4	7.2
	III	G	8.3	33.3	33.3	25.0
		O	33.3	8.3	25.0	33.3
	IV	G	0.0	44.4	44.4	11.1
		O	11.1	33.3	44.4	11.0
	V	G	11.8	11.8	64.6	11.8
		O	17.6	29.4	41.2	11.8
17. Increase in the overhead cost	I	G	0.0	0.0	100.0	0.0
		O	0.0	0.0	100.0	0.0
	II	G	13.3	6.7	46.7	33.3
		O	28.6	35.7	28.6	7.1
	III	G	8.3	33.3	25.0	33.3
		O	41.7	33.5	8.3	16.7
	IV	G	0.0	50.0	30.0	20.0
		O	11.1	33.3	44.4	11.1
	V	G	5.9	5.9	35.3	52.9
		O	17.6	29.4	17.6	35.3
18. Reduction in the human elements in work	I	G	0.0	0.0	100.0	0.0
		O	0.0	100.0	0.0	0.0
	II	G	26.7	40.0	26.7	6.6
		O	42.8	35.7	14.3	7.2
	III	G	0.0	25.0	50.0	25.0
		O	25.0	16.7	33.3	25.0
	IV	G	0.0	40.0	40.0	20.0
		O	22.2	22.2	33.3	22.2
	V	G	5.0	20.0	35.0	40.0
		O	10.0	5.0	50.0	35.0

Reasons for non-use of computers	Level of people	Ind-ustry in	Does not apply	Doubtful	Fairly certain	Very much certain
			0	1	2	3
19. The computer requires change of work habits	I	G	0.0	100.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	6.7	33.3	46.7	13.3
		O	28.6	21.4	35.7	14.3
	III	G	8.3	33.3	50.0	8.3
		O	25.0	33.3	33.3	8.3
	IV	G	0.0	10.0	50.0	40.0
		O	11.1	0.0	33.3	55.6
	V	G	15.8	10.5	31.6	42.1
		O	20.0	20.0	20.0	40.0
20. Fear that computers may go wrong and it may not be detected	I	G	0.0	100.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	20.0	60.0	20.0	0.0
		O	57.1	21.4	21.4	0.0
	III	G	25.0	25.0	33.3	16.7
		O	3.7	25.0	8.3	25.0
	IV	G	20.0	30.0	40.0	10.0
		O	44.4	11.1	0.0	44.4
	V	G	22.2	33.3	22.2	22.2
		O	42.1	31.6	26.3	0.0
21. Shift in the balance of power in favour of systems people	I	G	0.0	100.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	26.7	33.3	33.3	6.7
		O	33.3	46.7	20.0	0.0
	III	G	8.3	58.3	33.3	0.0
		O	25.0	33.3	41.7	0.0
	IV	G	0.0	60.0	20.0	20.0
		O	11.1	33.3	44.4	11.1
	V	G	27.8	16.7	38.9	16.6
		O	33.3	38.9	11.1	16.7

Reasons for non-use of computers	Level of people	Industry in	Does not apply	Doubtful	Fairly certain	Very much certain
			0	1	2	3
22. Lack of skills to understand the reports generated by the computer	I	G	0.0	100.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	6.7	63.7	26.6	0.0
		O	28.6	50.0	21.4	0.0
	III	G	16.7	25.0	41.6	16.7
		O	41.6	16.7	25.0	16.7
	IV	G	0.0	70.0	30.0	0.0
		O	22.2	55.6	11.1	11.1
	V	G	27.8	33.3	27.8	11.1
		O	22.2	50.0	5.5	22.2
23. Anti-Western feelings	I	G	100.0	0.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	60.0	26.7	13.3	0.0
		O	71.4	21.4	7.1	0.0
	III	G	41.7	50.0	0.0	8.3
		O	58.3	41.7	0.0	0.0
	IV	G	30.0	50.0	10.0	10.0
		O	66.7	11.1	11.1	11.1
	V	G	41.2	17.6	11.8	29.4
		O	35.3	23.5	17.3	23.5
24. Fear of loss of power since all information will be centralised	I	G	100.0	0.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	33.3	26.7	40.0	0.0
		O	50.0	42.9	7.1	0.0
	III	G	16.7	41.7	41.7	0.0
		O	50.0	16.7	33.3	0.0
	IV	G	0.0	60.0	30.0	10.0
		O	22.2	22.2	44.4	11.1
	V	G	27.8	16.7	33.3	22.2
		O	27.8	33.3	27.8	11.1

Reasons for non-use of computers	Level of people	Industry in	Does not apply	Doubtful	Fairly certain	Very much certain
			0	1	2	3
25. Changes produced in the social and cultural environment and the problem to adjust with these changes	I	G	0.0	100.0	0.0	0.0
		O	100.0	0.0	0.0	0.0
	II	G	28.6	35.7	28.6	7.1
		O	61.5	15.4	15.4	7.7
	III	G	18.7	35.3	50.0	0.0
		O	33.3	50.0	16.7	0.0
	IV	G	0.0	60.0	30.0	10.0
		O	11.1	33.3	44.4	11.1
	V	G	29.4	35.3	17.6	17.6
		O	35.3	35.3	11.8	17.6

Table 6

Preferred Areas of Application of the Computers

Preferred areas of application	Level of people	Unnecessary	Somewhat useful	Useful	Very useful	Essential
1. For the graphical representation of data, giving new ideas	1	0.0	100.0	0.0	0.0	0.0
	2	21.4	7.1	42.9	21.4	7.2
	3	8.3	25.0	50.0	8.3	8.3
	4	10.0	0.0	50.0	20.0	20.0
	5	10.0	10.5	10.5	47.4	21.1
2. For making new designs for products	1	100.0	0.0	0.0	0.0	0.0
	2	14.3	21.4	35.7	21.4	7.2
	3	0.0	18.2	45.5	36.3	0.0
	4	30.0	0.0	40.0	20.0	10.0
	5	26.3	10.5	36.8	10.5	15.8
3. For improving the quality of products	1	0.0	0.0	100.0	0.0	0.0
	2	7.7	30.8	46.1	15.4	0.0
	3	9.1	36.4	18.2	27.3	9.1
	4	20.0	40.0	20.0	20.0	0.0
	5	25.0	30.0	10.0	20.0	15.0
4. For minimising the cost of production	1	0.0	0.0	0.0	100.0	0.0
	2	0.0	6.7	46.7	33.3	13.3
	3	8.3	0.0	11.7	50.0	25.0
	4	11.1	11.1	44.4	22.2	11.1
	5	15.0	0.0	40.0	20.0	25.0
5. For maximising the profit	1	0.0	0.0	0.0	100.0	0.0
	2	0.0	21.4	28.6	42.9	7.1
	3	8.3	0.0	25.0	50.0	16.7
	4	0.0	30.0	20.0	40.0	10.0
	5	10.5	5.3	31.6	15.8	36.8
6. For clerical work	1	100.0	0.0	0.0	0.0	0.0
	2	13.3	20.0	26.7	33.3	6.7
	3	0.0	8.3	33.3	50.0	8.3
	4	33.3	11.1	33.3	11.1	11.1
	5	15.0	5.0	20.0	25.0	35.0

Preferred areas of application	Level of people	Unneces- sary	Somewhat useful	Useful	Very useful	Essent- ial
7. For accuracy in technical work	1	0.0	0.0	100.0	0.0	0.0
	2	6.7	13.3	33.3	33.3	13.3
	3	0.0	16.7	8.3	58.3	16.7
	4	40.0	20.0	10.0	10.0	20.0
	5	10.0	5.0	15.0	50.0	20.0
8. For automation of technical work	1	0.0	0.0	100.0	0.0	0.0
	2	7.1	7.1	42.8	28.6	14.3
	3	8.3	16.7	13.7	41.6	16.7
	4	30.0	20.0	20.0	20.0	10.0
	5	10.5	10.5	10.5	47.4	21.1
9. For getting things done in time	1	0.0	0.0	100.0	0.0	0.0
	2	0.0	0.0	28.6	71.4	0.0
	3	0.0	9.1	27.3	36.3	27.3
	4	20.0	10.0	20.0	10.0	40.0
	5	5.0	5.0	35.0	35.0	20.0
10. For the preparation of wage bills etc.	1	0.0	0.0	100.0	0.0	0.0
	2	0.0	0.0	33.3	46.7	20.0
	3	0.0	0.0	13.7	66.7	16.6
	4	0.0	20.0	0.0	50.0	30.0
	5	5.0	10.0	35.0	30.0	20.0
11. For job costing and routine accounting	1	0.0	100.0	0.0	0.0	0.0
	2	0.0	0.0	21.4	64.3	14.3
	3	0.0	0.0	25.0	66.7	8.3
	4	10.0	0.0	40.0	20.0	30.0
	5	5.0	10.0	35.0	35.0	15.0
12. For production scheduling	1	0.0	0.0	0.0	100.0	0.0
	2	0.0	7.1	42.9	42.9	7.1
	3	8.3	8.3	25.0	33.3	25.0
	4	0.0	30.0	30.0	40.0	0.0
	5	5.5	16.7	16.7	38.9	22.2
13. For storage and retrieval of information	1	0.0	0.0	0.0	100.0	0.0
	2	0.0	23.6	7.1	57.1	7.1
	3	8.3	0.0	13.7	58.3	16.7
	4	0.0	10.0	30.0	20.0	40.0
	5	0.0	5.9	41.2	35.3	17.6

Preferred areas of application	Level of people	Unneces- sary	Somewhat useful	Useful	Very useful	Essential
14. For matching the technical requirements more precisely	1	0.0	0.0	0.0	100.0	0.0
	2	0.0	35.7	42.9	14.3	7.1
	3	0.0	16.7	25.0	58.3	0.0
	4	0.0	44.4	22.2	22.2	11.1
	5	17.6	11.8	29.4	23.5	17.7
15. For the control of assembly line	1	0.0	0.0	0.0	100.0	0.0
	2	7.1	42.9	21.4	14.3	14.3
	3	25.0	8.3	25.0	41.7	0.0
	4	33.3	0.0	33.3	22.2	11.1
	5	22.2	11.1	38.9	27.8	0.0
16. For demand forecasting	1	0.0	0.0	100.0	0.0	0.0
	2	0.0	26.6	46.7	26.6	0.0
	3	0.0	8.3	33.3	41.7	16.7
	4	0.0	20.0	30.0	50.0	0.0
	5	10.5	31.6	26.3	26.3	5.3
17. For research related to industry	1	0.0	0.0	100.0	0.0	0.0
	2	0.0	42.9	35.7	21.4	0.0
	3	0.0	18.2	27.3	42.5	9.0
	4	30.0	0.0	30.0	30.0	10.0
	5	5.0	0.0	40.0	40.0	15.0
18. For selection of employees	1	0.0	100.0	0.0	0.0	0.0
	2	20.0	60.0	13.3	6.7	0.0
	3	18.7	33.3	41.7	8.3	0.0
	4	40.0	40.0	20.0	0.0	0.0
	5	42.1	26.3	5.3	10.5	15.8
19. For educational programmes for company personnel	1	0.0	100.0	0.0	0.0	0.0
	2	28.6	42.9	21.4	7.1	0.0
	3	25.0	41.7	16.7	8.3	8.3
	4	20.0	50.0	10.0	10.0	10.0
	5	15.8	21.1	31.6	10.5	21.0
20. For retrieving information in time to reduce wastage	1	0.0	0.0	100.0	0.0	0.0
	2	0.0	21.4	42.8	28.6	7.2
	3	8.3	8.3	8.3	58.3	16.7
	4	20.0	30.0	10.0	30.0	10.0
	5	17.6	17.6	17.6	47.2	0.0

Preferred areas of application	Level of people	Unneces- sary	Somewhat useful	Useful	Very useful	Essential
21. For getting the signal before hand in the production process	1	0.0	0.0	100.0	0.0	0.0
	2	14.3	17.3	42.9	21.4	7.1
	3	8.3	25.0	25.0	25.0	16.7
	4	11.1	22.2	22.2	44.4	0.0
	5	13.3	17.3	26.7	40.0	6.7
22. For monitoring production process	1	0.0	0.0	100.0	0.0	0.0
	2	0.0	33.3	33.3	20.0	13.3
	3	13.7	8.3	41.6	18.7	16.7
	4	22.2	11.1	44.4	0.0	22.2
	5	22.2	11.1	18.7	22.2	27.8
23. For feedback mechanism	1	0.0	0.0	100.0	0.0	0.0
	2	0.0	0.0	61.5	30.8	7.7
	3	9.1	0.0	36.4	45.4	9.1
	4	22.2	0.0	33.3	22.2	22.2
	5	15.3	22.7	33.3	9.7	22.0
24. For the publicity of the industry	1	100.0	0.0	0.0	0.0	0.0
	2	28.6	50.0	14.3	7.1	0.0
	3	25.0	33.3	18.7	25.0	0.0
	4	44.4	22.2	0.0	22.2	11.1
	5	35.3	17.6	23.5	11.8	11.8
25. For making use of latest management techniques	1	0.0	0.0	0.0	100.0	0.0
	2	7.1	35.7	21.4	21.4	14.3
	3	0.0	0.0	9.1	72.7	13.3
	4	0.0	0.0	50.0	40.0	10.0
	5	16.7	5.6	22.2	22.2	33.3
26. For maximum utilization of available resources	1	0.0	0.0	100.0	0.0	0.0
	2	0.0	13.3	53.3	26.7	6.7
	3	0.0	0.0	33.3	50.0	16.7
	4	0.0	30.0	10.0	30.0	30.0
	5	0.0	17.3	17.6	17.6	47.1
27. For decision-making in management	1	0.0	0.0	100.0	0.0	0.0
	2	0.0	20.0	53.3	13.3	13.3
	3	0.0	8.3	33.3	41.7	16.7
	4	20.0	20.0	20.0	30.0	10.0
	5	15.8	21.0	21.0	10.5	31.6

Table 7: Intercorrelation Matrix (Decimal points not printed to save space. N = 52)

	Age	Marital Status	Level of education	Mathematical background	Income (monthly)	Experience	Overall perception of computer	Attitude towards computer	Internal & external locus of control	Intolerance for ambiguity (GOS)	Attitude & opinion (self-disclosure)	Test & interest (self-disclosure)	Work (self-disclosure)	Money (self-disclosure)	Personality (self-disclosure)	Body (self-disclosure)
Marital status	-45**															
Level of education	01	01														
Mathematical background	-16	13	60**													
Income (monthly)	67**	-23	35**	33*												
Experience	78**	-27*	08	05	67**											
Overall perception of computer	-15	13	15	-10	-19	-26										
Attitude towards computer	05	-14	17	-12	-05	08	23									
Internal and external locus of control	-31	06	-03	-08	-32*	-17	09	-03								
Intolerance for ambiguity	24	-21	06	-01	04	33*	-01	30*	21							
Attitude and opinion	17	-13	18	21	35*	11	-23	-11	-15	-30*						
Test and interest	-01	12	01	16	22	02	-35**	-24	02	-15	43**					
Work	-34*	15	26	27*	-02	-17	-16	10	31*	-14	36**	21				
Money	-07	04	29*	13	18	03	-16	18	08	-08	53**	43**	53**			
Personality	-03	-07	22	24	14	14	-38**	07	07	23	35**	30*	60**	49**		
Body	02	-23	-14	12	22	14	-38**	-31*	009	-25	43**	19	30*	35**	37**	

* Significant at .05 level
 ** Significant at .01 level

Your Image of the Computer

We are interested to know how people perceive the computers. Write below 15 adjectives which will describe your view of the computer. These adjectives may be positive or negative. We are interested in knowing your views, and so what adjectives you think in relation to the computer are important to us. These could be words or phrases, or short sentences.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

Attitude towards Computers (A)

Please read the following statements and tick mark (✓) those with which you agree.

- 1 Computer is not desirable now in the country because the majority of people may not be in favour.
- 2 Use of computers should be prohibited.
- 3 Computer helps to solve problems faster.
- 4 All industries should make use of computers as far as possible.
- 5 The use of computers can improve the quality of products within a short time.
- 6 With the help of computers employees of an industry can be relieved from repetitive (routine) types of jobs.
- 7 Because of the superior memory computers have great uses in industry.
- 8 If judiciously used computers can be useful in several areas.
- 9 The utility of computers is highly limited.
- 10 India is not ready for computers and will not be ready for quite some time.
- 11 Computer can solve complex problems which cannot be solved by human being.
- 12 Computers create more problems, and have little utility.
- 13 The use of computers goes against the interest of the employees and should not be encouraged.
- 14 Computer is economic if the industry used it full time, and this is not possible.
- 15 It is risky to depend upon the decisions suggested by computer.
- 16 Computer makes clerks redundant through mechanisation of clerical work.
- 17 Computers are a great boon to humanity.
- 18 Computers can be used to solve some problems, but not the major ones.
- 19 Computers will help employees learn new skills.
- 20 Computers can be helpful in solving several problems of industry.

Attitude towards Computers (B)

Please read the following statements and tick mark (✓) these with which you agree.

- 1 Computers can be used to solve several problems, if properly used.
- 2 Computer does not supplant (substitute for) but supplements the clerical and other staff.
- 3 An industry should use the computer because it has superior memory compared to human memory.
- 4 Computer is too expensive for a country like India.
- 5 Computers might be useful but the results are not always encouraging.
- 6 All industries should make use of the computer for its development programmes.
- 7 Computer is good for management but bad for the clerical staff.
- 8 Computers can work more effectively than human beings.
- 9 Computer is more dependable than human beings.
- 10 The use of computer is a threat to the employees' position.
- 11 The government should pass a law to stop the use of computers in industries and other establishments.
- 12 Computers will help in ushering in technological culture in the industry.
- 13 Computer is useful for some purposes.
- 14 Computer can avoid labour-management problems
- 15 Computer is the most remarkable achievement in the human industry.
- 16 Computer is very much helpful for management decision making.
- 17 The use of computer does not increase the productivity of an industry
- 18 Computers can be used in India neither at present nor in the near future.
- 19 Computer creates a number of unavoidable problems for the management.
- 20 Computers are not useful in small scale industries.

Preferred Areas of Application of the Computer

Please give your opinion about the use of computers for various purposes. Below are listed the areas in which computers can be used. Against each area tick mark (✓) to indicate if you think computer is essential or very useful or useful, or somewhat useful, or unnecessary for that area.

	Computer is				
	Essential	Very useful	Useful	Somewhat useful	Un-necessary
1. for graphical representation of data, giving new ideas	-	-	-	-	-
2. for making new designs for products	-	-	-	-	-
3. for improving the quality of products	-	-	-	-	-
4. for minimising the cost of production	-	-	-	-	-
5. for maximising the profit	-	-	-	-	-
6. for clerical work	-	-	-	-	-
7. for accuracy in technical work	-	-	-	-	-
8. for automation of technical work	-	-	-	-	-
9. for getting things done in time	-	-	-	-	-
10. for the preparation of wage bills etc	-	-	-	-	-
11. for job costing and routine accounting	-	-	-	-	-
12. for production scheduling	-	-	-	-	-
13. for storage and retrieval of information	-	-	-	-	-
14. for matching the technical requirements more precisely	-	-	-	-	-
15. for the control of assembly line	-	-	-	-	-
16. for demand forecasting	-	-	-	-	-
17. for research related to industry	-	-	-	-	-
18. for selection of employees	-	-	-	-	-
19. for educational programmes for company personnel	-	-	-	-	-
20. for retrieving information in time to reduce wastage	-	-	-	-	-
21. for getting the signal of danger beforehand in the production process	-	-	-	-	-
22. for minutely keeping track of the production process	-	-	-	-	-
23. for feedback mechanism	-	-	-	-	-
24. for the publicity of the industry	-	-	-	-	-
25. for making use of latest management techniques	-	-	-	-	-
26. for maximum utilization of available resources	-	-	-	-	-
27. for decision-making in management	-	-	-	-	-

Questionnaire on Reasons for Non-use of Computers

Many industries do not use computers as much as they could or should. We are interested in knowing why the computers are not used. Below are given the reasons. You may add at the end any other reasons not listed here. Against each ^{reason} / indicate how certain you are that the computers are not used for that reason, write 3 if you are very certain, 2 if you are fairly certain, and 1 if you are doubtful. If it does not apply write 0.

Please check both columns: for industry in general, and for your own industry.

<u>Reasons</u>	<u>Level of certainty, write</u> <u>3/2/1/0</u>	
	<u>Industry in</u> <u>general</u>	<u>Your own</u> <u>industry</u>
1. Lack of technical skills and expertise for the maintenance and use of computer.		
2. High Cost		
3. Fear of obsolescence of skill among concerned employees.		
4. Ignorance about the potential use of computers.		
5. Fear of losing jobs and job opportunities.		
6. Fear of becoming dispensible.		
7. The belief that availability of manpower does not warrant use of computer.		
8. Non-availability of skilled persons to run and maintain the computer.		
9. Scale of operation being too small for computer.		
10. Technology of industry not requiring computer		
11. Fear of role change.		
12. Feeling that those ^{who} / work with computers will have a hold over others because of their specialised knowledge.		

Reasons

Level of certainty, write	
3/2/1/0	
Industry in general	Your own industry

13. Fear that computers would reduce free time and the tendency to work according to their convenience.
14. Introduction of computer may require reorganization of the company.
15. Feeling of inadequacy in the face of unknown powerful system
16. Reduction in the importance of some people who are taking decisions.
17. Increase in the overhead cost.
18. Reduction in the human elements in work.
19. The computer requires change of work habits.
20. Fear that computers may go wrong and it may not be detected.
21. Shift in the balance of power in favour of systems people.
22. Lack of skills to understand the reports generated by the computer.
23. Anti-Western feelings.
24. Fear of loss of power since all information will be centralised.
25. Changes produced in the social and cultural environment and the problem to adjust with these changes.

Social Reaction Inventory

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a and b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you are concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers.

Please answer those items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. Read each pair of statements and encircle the letter a or b which you choose to indicate the corresponding statement to be more true.

In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you are concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices.

Remember

Select the alternative which you personally believe to be more true.

I more strongly believe that:

1. a. Children get into trouble because their parents punish them too much.
b. The trouble with most children nowadays is that their parents are too easy with them.
2. a. Many of the unhappy things in people's lives are partly due to bad luck.
b. People's misfortunes result from the mistakes they make.
3. a. One of the major reasons why we have wars is because people do not take enough interest in politics.
b. There will always be wars, no matter how hard people try to prevent them.
4. a. In the long run people get respect they deserve in this world.
b. Unfortunately, an individual's worth often passes unrecognised no matter how hard he tries.
5. a. The idea that teachers are unfair to students is nonsense.
b. Most students don't realise the extent to which their grades are influenced by accidental happenings.

I more strongly believe that

6. a. Without the right breaks one cannot be an effective leader.
b. Capable people who fail to become leaders have not taken advantage of their opportunities.
7. a. No matter how hard you try some people just don't like you.
b. People who can't get others to like them, don't understand how to get along with others.
8. a. Heredity plays the major role in determining one's personality.
b. It is one's experience in life which determines what they're like.
9. a. I have often found that what is going to happen will happen.
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10. a. In the case of a well prepared student there is rarely, if ever, such a thing as an unfair test.
b. Many times examination questions tend to be so unrelated to course work, that studying is really useless.
11. a. Becoming a success is a matter of hardwork, luck has little or nothing to do with it.
b. Getting a good job depends mainly on being in the right place at the right time.
12. a. The average citizen can have an influence in government decisions.
b. This world is run by the few people in power, and there is not much the little guy can do about it.
13. a. When I make plans, I am almost certain that I can make them work.
b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
14. a. There are certain people who are just no good.
b. There is some good in everybody.
15. a. In my case getting what I want has little or nothing to do with luck.
b. Many times we might just as well decide what to do by flipping a coin.
16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.
17. a. As far as world affairs are concerned most of us are the victims of forces we can neither understand, nor control.
b. By taking an active part in political and social affairs the people can control world events.
18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
b. There really is no such thing as "luck".

I more strongly believe that

19. a. One should always be willing to admit his mistakes.
b. It is usually best to cover up one's mistakes.
20. a. It is hard to know whether or not a person really likes you.
b. How many friends you have depends upon how nice a person you are.
21. a. In the long run the bad things that happen to us are balanced by the good ones.
b. Most misfortunes are the results of lack of ability, ignorance, laziness, or all three.
22. a. With enough effort we can wipe out political corruption.
b. It is difficult for people to have much control over the things politicians do in office.
23. a. Sometimes I can't understand how teachers arrive at the grades they give.
b. There is a direct connection between how hard I study and the grades I get.
24. a. A good leader expects people to decide for themselves what they should do.
b. A good leader makes it clear to everybody what their jobs are.
25. a. Manytimes I feel that I have little influence over the things that happen to me.
b. It is impossible for me to believe that chance or luck plays an important role in my life.
26. a. People are lonely because they don't try to be friendly.
b. There's not much use in trying too hard to please people, if they like you, they like you.
27. a. There is too much emphasis on athletics in high school.
b. Team sports are an excellent way to build character.
28. a. What happens to me is my own doing.
b. Sometimes I feel that I don't have enough control over the direction my life is taking.
29. a. Most of the time I can't understand why politicians behave the way they do.
b. In the long run the people are responsible for bad government on a national as well as on a local level.

General Opinion SurveyPart II

Please read each statement carefully and say whether you think it true(+) or false (-). Put your answer in a bracket provided. ANSWER THE QUESTION AS TRUTHFULLY AS POSSIBLE. There are no right or wrong answers.

- () 1 Most women/men are either good or bad.
- () 2 There is only one true religion.
- () 3 It is always desirable to do the socially acceptable thing.
- () 4 It is better to love or hate a person fully instead of loving and hating him simultaneously.
- () 5 What is in a man's nature will come out in his actions, and human nature does not change.
- () 6 People who keep changing their opinions cannot be trusted.
- () 7 Modern artists are fakes trying to put something over on the public.
- () 8 In this world definite choices must be made all the time.
- () 9 Everthing is best in this best possible world.
- () 10 Children should be given every possible opportunity to express themselves freely.
- () 11 A person who is certain about everything is certain to be wrong.
- () 12 I always make up an ending for a story when the authors leave me in doubt as to the fate of the hero.
- () 13 If I have the choice of two alternatives and I cannot decide, I find it better to choose either one to get the decision over with.
- () 14 I dislike working puzzles to which there seems to be no solution.
- () 15 It makes me uncomfortable when some one is speaking about something which I do not understand.
- () 16 I change my mind easily when someone puts forth a convincing argument.
- () 17 I take a philosophical view of life most of the time.
- () 18 I make up my mind very rapidly.
- () 19 It makes me uncomfortable to do anything unconventional.
- () 20 I dislike learning things about which I know absolutely nothing.
- () 21 I hate leaving things in an unsettled state
- () 22 It upsets me when a person does not know the correct behaviour for every occasion.
- () 23 It does not bother me in the least to wait for the outcome of a pending situation.
- () 24 If there is some evidence that a person does not bear a good character I prefer to sever my relation with him instead of bothering to collect more information about him.

Interpersonal Yoga

The immediate object of Hatha Yoga is to master the various asanas. Each of these is a specific position which one leads one's body to assume. A beginner commences to assume one of these positions and finds that his muscles "protest." The means by which one fully enters as asana is by entering it up to one's limit, and then press gently at that limit. There can be no forcing, no cheating. The novice enters a position no further than he has "earned".

One can view self-disclosure as a kind of interpersonal asana. Some of the things about yourself you will regard as most personal and private than others; people differ widely in what they consider appropriate to let others know and what they consider is nobody's business. Given below is a list of topics that pertain to you. Using the following scheme, indicate upto what extent you have self-disclosed on these topics. In addition, also indicate in appropriate column the sex of the person to whom you disclosed wherever applicable.

Scheme to be used for indicating the degree of self-disclosure:

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- a = Have told the other persons nothing about this aspect of me.
 b = Have told in general terms about this. The other person has only a general idea of this aspect about me.
 c = Have talked in full and complete detail of this item to the other person. He/She knows me fully in this respect and can describe me accurately.
-

Topics	Degree of self-disclosure (see block)	Sex of the person to whom self-disclosed when applicable (M=Male F=Female)
		M F
1. What I think and feel about religion; my personal religious views		
2. My views on the present government, the president, government policies, etc.		
3. My personal views on sexual morality how I feel that I and others ought to behave in sexual matters.		

Topics	Degree of self-disclosure (see block)	Sex of the person to whom self-disclosed when applicable (M=Male; F=Female)
4. My personal standards of beauty and attractiveness in women - what I consider to be attractive in a woman.		M F
5. My feelings about how parents ought to deal with children		
6. My favourite foods, the ways I like food prepared, and my food dislikes.		
7. My likes and dislikes in music		
8. My favourite reading matter		
9. The kind of party, or social gathering that I like best, and the kind that would bore me, or that I would not enjoy.		
10. My favourite ways of spending spare time, e.g. hunting, reading, cards, sports events, parties, dancing, etc.		
11. What I find to be the most boring and un-enjoyable aspects of my work/study.		
12. What I feel are my shortcomings and handicaps that prevent me from working/studying as I'd like to, or that prevent me from getting further ahead in my work.		
13. My ambitions and goals in my life.		
14. How I feel about the choice of career that I have made - whether or not I'm satisfied with it.		
15. Whether or not I owe money; if so, how much.		
16. Whether or not I have savings, and the amount.		
17. Whether or not others owe me money; the amount, and who owes it to me.		
18. How I budget my money - the proportion that goes to necessities, luxuries, etc.		
19. The aspects of my personality that I dislike, worry about, that I regard as a handicap to me.		

Topic	Degree of self-disclosure (see block)	Sex of the person to whom self-disclosed when applicable (M=Male; F=Female)
		M F
20. The facts of my present sex life - including knowledge of how I get sexual gratification; any problems that I might have, with whom I have relations, if anybody.		
21. Whether or not I feel that I am attractive to the opposite sex; my problems, if any, about getting favourable attention from the opposite sex.		
22. Things in the past or present that I feel ashamed and guilty about.		
23. What it takes to get me feeling real depressed and blue.		
24. The kinds of things that make me especially proud of myself, elated, full of self-esteem or self-respect.		
25. My feelings about the appearance of my face - things I don't like, and things that I might like about my face and head - nose, eyes, hair, teeth, etc.		
26. Whether or not I now have any health problems - e.g., trouble with sleep, digestion, female complaints, heart condition, allergies, headaches, piles, etc.		
27. Whether or not I have any long-range worries or concerns about my health, e.g., cancer, ulcers, heart trouble.		
28. My past record of illness and treatment.		
29. My present physical measurements, e.g. height, weight, waist, etc.		
30. My feelings about my adequacy in sexual behaviour - whether or not I feel able to perform adequately in sex-relationships.		

REFERENCES

- Adorno, T.W. et al. The Authoritarian Personality: New York. Harper, 1950, 989 p.
- Block, J. The Q-sort in assessment and some problems in its use. IPAR Research Bulletin, 1952 (b) .
- Block, J. and Bennett, L. The assessment of communication: Perception and transmission as a function of the social situation. Human Relations, 1955, 8, 317-325.
- Frenkel-Brunswik, Else. Intolerance of ambiguity as emotional and perceptual personality variables. Journal Personality, 1949, 18, 108-143.
- Jourard, S.M. Self-disclosure: An Experimental Analysis of the Transparent Self. John Wiley & Sons. 1971, 247 p.
- Lefcourt, H.M. Internal versus external control of reinforcement: A review. Psychological Bulletin, 1966, 65, 206-220.
- Rotter, J.B. Generalization Expectancies for Internal versus External Control of Reinforcement. Psychological Monograph, 1966, No.1, 80 p.
- Rotter, J. B. Social Learning and Clinical Psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1954.
- Thurstone, L.L. Comment. American Journal of Sociology, 1946, 52, 39-50.