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IMPLEMENTATION PROBLEMS OF
MANAGEMENT CONTROL SYSTEMS

S K Bhattacharyya
J G Camillus

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S K Bhattacharyya
J C Camillus
Institute of Management, Ahmedabad

This report summarizes the initial findings of the research project on implementation problems of management control systems sponsored by the Indian Institute of Management, Ahmedabad, with the support of the Institute of Chartered Accountants of India. It must be emphasised that the findings at this stage represent just a "first cut" at the data and that a considerable amount of statistical analysis as well as in-depth interviews remain to be executed.

This research project would not have been possible without the financial help of the Indian Institute of Management, Ahmedabad, the unstinted support of the Institute of Chartered Accountants of India, and most importantly, the tremendous amount of co-operation provided to the researchers by the corporate sector. The response rate to the questionnaire has been truly phenomenal. In fact, in view of the length of the questionnaire, it is indeed a matter of considerable gratification, that the researchers can now analyse the management control practices of over 90 selected, large Indian companies.

The researchers wish to place on record the tremendous debt of gratitude owed to the Indian Institute of Management, the Institute of Chartered Accountants of India, and the companies that participated in the research study.

Objectives of the Research Project

The design of Management Control Systems has been essentially "standardised" for the past few years as a result of extensive research, writing, and practical experience. However, as pointed out by Professor John Dearden in his acceptance speech on assuming the Krannert Chair at the Harvard Business School, the major problems

presently being experienced with regard to management control systems relate to implementation and administration rather than design.

"Administration is the key. What must be recognised is that for effective implementation, the same technique may have to be administered differently depending upon the organizational variables"

Unfortunately, the research that has been done so far on implementation problems, is more relevant to the Western than the Indian business environment, and considers problems individually rather than in their totality.

The specific objectives of this research project are, therefore, to provide a deeper understanding and systematic analysis of the implementation problems of management control systems in Indian companies, and to determine the relationship, if any, between these problems on one hand, and the characteristics of the companies and the design of management control systems on the other.

The Basic Hypothesis

The basic hypothesis of the research study is that the effectiveness of management control systems depends on the manner in which the system is implemented and administered. Implicit in this basic proposition is that the design of the management control system itself is not so critical in terms of effectiveness.

In addition to testing the validity of this basic hypothesis, the research study seeks to identify the relationships between the characteristics of the companies in which the systems operate and the problems experienced, and also relationships between the characteristics of the management control systems and the implementation problems experienced. This analysis, it is expected, will lead to insights and recommendations regarding the situations in which particular problems are likely to arise and measures to be taken in system design in order to avoid occurrences of such problems.

1 See: Harvard Business School Bulletin, (Vol.45, No.6, November-December 1969), p.26

Classification of Implementational Problems Anticipated

The researches conducted by Deming² and Stedry³ are typical of the normative analyses on the basis of which the design of management control systems has been standardised. Such research also helps identify possible problem areas that are likely to be encountered. Drawing from these works and from case studies and practical experiences in designing and implementing management control systems, a classification of the implementation problems on which the study focuses, was developed.

The implementational problems anticipated need to be broken up into:

- a) Problems that impede the management control process.
- b) Problems that are dysfunctional consequences of the management control processes.

Each of these categories can in turn be meaningfully segmented into:

- a) Organizational and behavioural problems.
- b) Technical problems.

Impediments to MCS Implementation

Organizational and behavioural problems likely to impede the management control process can be assigned to one of the following groups:

- i) Problems resulting from inappropriate formal organizational structures. Ill-defined lines of authority and responsibility would fall into this category. Organizational boundaries and sub-units which are not in keeping with the responsibility centres identified by the control systems are

² Robert H. Deming, Characteristics of an Effective Management Control System in an Industrial Organization, (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1968).

³ Andrew C. Stedry, Budget Control and Cost Behavior, (Englewood Cliffs, N.J.: Prentice-Hall, 1960).

another example of such problems.

- ii) Problems arising from corporate philosophies, norms and cultures detrimental to the concept of control implicit in the design of management control systems. In this category would also fall problems arising from a lack of understanding of the motivational connnotations of management control.
- iii) Problems arising from existence of informal organizational linkages and communication which are not in keeping with those presumed to exist by the control system.
- iv) Problems arising from a lack of competent executives to administer the management control system. This group of problems is anticipated in view of the fact that in India there are relatively few trained "Controllers", as distinct from "Accountants".

Technical problems likely to impede the implementation of management control systems primarily arise from:

- i) The accounting process - for instance, the trade-off between speed and accuracy in providing financial accounting data and the fact that decisions made in certain accounting periods give rise to consequences in other accounting periods.
- ii) The conflict between the assumptions necessary for custodial accounting for purposes of statutory external reporting and those required for management control.
- iii) The differing time spans for management control and operational control decisions and the impact of both types of decisions on each functional area. For instance, production budgeting as an input to the management control system would be

essentially long-term with an emphasis on the "product-mix" whereas production scheduling oriented towards operational control is more short-term and based on sales indents and inventory criteria.

Dysfunctional Consequences of MCS Implementation

Dysfunctional behavioural consequences of control have been the subject of considerable study. Merton⁴ for instance analyzed the effect of an increase in control within an organization and asserts that one of the results of an increased demand for control within an organization is a decrease in the amount of search for alternatives. March and Simon⁵ in their appropriately famous decision model consider the expected value of reward - which is essentially an MCS consideration - to be an important determinant in the management decision making process. Cyert and March⁶ analysed the impact of control on behaviour by introducing behavioural considerations into an economic model of the firm. O.E. Williamson⁷ also developed models along these lines. Stedry's⁸ prize winning dissertation too, looked at the impact of budgets on behaviour. Most recently Dalton⁹ has been engaged in continuing research on aspects of motivation and control.

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- 4 R.K.Merton, "Bureaucratic Structure and Personality", Social Forces, Vol. XVIII, (1940), p.560-568.
 - 5 James G.March and Herbert A.Simon, Organizations. (New York: John Wiley and Sons, 1958).
 - 6 Richard M. Cyert and James G. March, A Behavioral Theory of Firm. (Englewood Cliffs, New Jersey: Prentice-Hall, 1963).
 - 7 O.E.Williamson, The Economics of Discretionary Behavior: Managerial Objectives in a Theory of the Firm. (Chicago: Markham Publishing Co., 1967). Also: Corporate Control and Business Behavior, (Englewood Cliffs, N.J: Prentice-Hall, 1970).
 - 8 Op. cit.
 - 9 Gene W.Dalton, and Paul R. Lawrence, eds., Motivation and Control in Organizations, (Homewood, Ill.:Richard D. Irwin, 1971).

Unfortunately, all these efforts to determine the dysfunctional behavioural consequences of control suffer from the following drawbacks when looked at from the perspective adopted for the proposed study.

- a) The findings of these research studies cannot be extended to cultures other than those of the industrially developed occidental countries.
- b) The approaches are broad-gauged. The thrust is essentially to determine the consequence of efforts at manipulating behaviour; whereas this study is considerably more operationally focussed, with the intent of identifying dysfunctionalities in behaviour resulting from the introduction of management control systems.

Consequently an identification of dysfunctional behaviour resulting from the introduction of management control systems is a very deeply felt need at present.

Dysfunctional consequences of a technical nature have also been the subject of considerable study. Typical are Dearden's article on problems of financial¹⁰ and profit¹¹ control based on "Return on Investment". Some solutions to these technical problems have also been proposed - for example Henderson and Dearden's¹² article on the contribution approach to divisional control. In the case of technical problems too, not much research has so far been accomplished in the Indian context.

10 John Dearden, "Problem in Decentralised Financial Control", Harvard Business Review, (May-June 1961).

11 John Dearden, "Problem in Decentralized Profit Responsibility," Harvard Business Review, (May-June 1960).

12 Bruce D. Henderson and John Dearden, "New System for Divisional Control," Harvard Business Review, (September-October, 1966).

The dysfunctional consequences of management control systems express themselves primarily in terms of behaviour detrimental to the achievement of corporate goals and objectives. The distinction between problems that have been labelled 'organizational and behavioural' and 'technical' is that the former stem from the management attitude towards control whereas the latter are the result of the management control system rewarding dysfunctional behaviour.

Methodology

In terms of data collection, it is intended that both the questionnaire and the interview methods will be used.

At this time, questionnaires have been sent to about 170 carefully selected Indian companies. At the moment, ninety-three responses have been received. Of these ninety-three, eighty-eight questionnaires have so far been coded, transferred to magnetic tape and stored in the memory facilities of IIMA's HP 2116B Computer.

The companies to whom the questionnaires were sent had been selected on the basis of their size, location, nature of operations, type of ownership and management style.

The questionnaire employed is reproduced as Annexure I.

The statistical analysis carried out on the eight-eight companies already in the data bank, has so far included frequency distributions and some preliminary contingency table analysis.¹³

Following this initial scanning of the data which has already been executed, in-depth statistical analysis of all respondents will be carried out. In addition to the above statistical techniques, it is planned to employ multiple regression, (using the dummy variable technique) in order to obtain multiple correlation statistics.

In addition to the data obtained from the questionnaires, the published financial statements of the respondents have also been employed as a source of data in the project.

¹³ These terms are explained later on in this report.

The frequency distributions of the data obtained from the questionnaire and from published financial statements are given as Annexures II and III, respectively. The findings of the analysis of association (correlation) between perceived effectiveness of the system and selected other variables is given in Annexure IV.

After the statistical analysis has been completed, in-depth interviews with selected respondents will be carried out in order to obtain a better understanding of the statistical implications. Also more pragmatic recommendations should, hopefully, result from carrying out such interviews.

Characteristics of the Companies in the Data Bank

Frequency distributions of characteristics thought to be of interest are given in Annexure III. (By frequency distribution is meant of number of companies which fall into the various categories pertaining to the particular characteristic under study.)

It may be of interest to look first at Annexure III which gives statistics relating to the financial characteristics of the companies in the data bank. It will be observed that the companies are very large and that generally speaking most of them have an impressive record of growth in profits and sales. The management style of the companies of the data bank will also be of particular interest. (Annexure III, Variable 200).

Additional company characteristics are also given in Annexure II (Variables 022 to 014). These characteristics also confirm the fact that the companies of the data bank are large. It will be noted that:

1. 78% of the companies have over 1000 employees.
2. 22% essentially sell industrial goods, and 32% primarily sell to individual consumers.
3. Of the Board of Directors, only the Managing Director is involved full time in the affairs of the company in 39% of the respondents, and two to three directors are involved full time in 35% of the companies.

4. Approximately 70% of the companies have less than 50% or less of equity held by foreign interests.

Some Generalization Based on the Frequency Distributions (Annexure II)

Almost all the respondents have formally stated organizational objectives. In fact eight of the companies employ five or more parameters (such as profits/sales/ROI/etc.) when stating their organisational objectives.

The degree of sophistication and detail employed in developing and stating the sales budget is generally very high. For instance 36 out of 84 companies replying to this particular question break up their sales budget both product-line-wise and geographic region-wise. Another 42 break up the sales budget in either geographic region or product-line categories. Monthly sales budgets are developed in most of the companies. The sales budget is reviewed by top management in at least 64 out of 83 companies. Past sales, competition and specific estimates of customers' demands are all employed in the large majority of companies as bases on which the sales budget is developed. Twenty out of eight-three companies also consider econometric data when developing sales budgets.

Production budgets are also quite detailed. The emphasis is primarily on costs - with the majority of companies specifically identifying variable, departmental and non-routine costs and also fixed overhead. Sixty-eight out of seventy-six companies also identify "contribution" or "margin", for either product-lines or products. In terms of non-financial indicators, the production budgets generally do not consider these except for two, namely:

- 1) standards for material consumption, and
- 2) standards for planned yield.

With regard to the overhead budget, seventy-six out of eighty-two companies develop such budgets. Fifty-five out of seventy-four classify overhead costs into both discretionary and committed costs and only nine use neither of these classifications for overhead costs.

With regard to the company-wide budget seventy-one out of eighty-five companies break up their cash flow statements into quarterly or shorter periods. Only three of the eighty-five do not develop cash flow statements. Working capital too is budgeted in almost all companies.

Participation of lower levels of management in the development of budgets is quite extensive. In twenty-nine out of eighty-five companies there has to be a mutual agreement between operating and top management. In another fifty-three, the opinions of operating management carry weight.

Reviews with intent to revise the budget are not ordinarily held in thirty-two of eighty-five companies. In forty-two out of eighty-six companies the budget is revised only if there are drastic changes beyond management's control.

All companies initiate their budget development at least a month prior to the start of the budget year. Fifty out of eighty companies initiate the budget development over three months prior to the budget year.

The large majority of companies identify variances in the reports going to various levels of management. These variance reports include even items such as non-financial measures of performance. Reviews of actual versus expected performance are carried out at least quarterly in seventy-six out of eighty-five companies.

The concept of responsibility centres is applied in seventy-one out of eighty-four companies. Profit centres exist in thirty-six out of these eighty-four companies.

The executive in charge of administering the management control system, in most cases reports to the Chief Executive of the company. It may also be of some interest to note that in eleven out of eighty-two companies the executive administering the management control system is designated as the "Controller", and in another nine companies the designation is "Chief Accountant".

Finally, another interesting aspect is that reports are prepared by means of punched cards or by electronic data processing equipment in half the companies.

The overall impression regarding the design of the management control systems among the respondents is that the majority of these systems are quite "sophisticated" in that their design incorporates most elements thought important from a theoretical standpoint.

Association (Correlation) Between Measures of Effectiveness and System Design Characteristics

Contingency table analysis was employed to examine the relationship between the design of the systems and the perceptions of the respondents regarding the effectiveness of the systems along several dimensions.¹⁴

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- 14 The most useful statistics developed from contingency table analysis are the contingency coefficient and the level of significance. For those unfamiliar with these measures any text on statistics should provide an explanation. A useful work is "Non-parametric Statistics" by Sidney Siegel.

Very briefly, the higher the contingency coefficient, the greater the association between two variables. Generally speaking a contingency coefficient of 0.3 or more is indicative of a meaningful association between two variables - given the low number of degrees of freedom involved.

The level of significance is given in percentage terms and is a measure of the probability that the statistics obtained are the result of a random occurrence. For instance a level of significance or "confidence level" of 1% means that there is only a 1% chance of the observed relationship being a random occurrence.

It would be necessary therefore to view the contingency coefficient from the perspective of the significance level. A significance level of 5% is generally accepted as satisfactory.

The preliminary contingency table analyses carried out are listed in Annexure IV. Even these preliminary analyses very clearly and unmistakably bear out the basic proposition that the effectiveness of management control systems depends primarily on implementation and administration, and only to a very limited extent on the design of the system.

Effectiveness of the management control system with regard to overall corporate performance has a significant association (significance level within 5% and contingency coefficient greater than 0.3) with only one out of the thirteen system and corporate characteristics considered. On the other hand, significant association exist with respect to fourteen of the eighteen implementation problems considered. The conclusion is inescapable - implementation is the key to effectiveness of management control systems.

While all the associations identified are of interest, it is particularly intriguing to note two of the problems more highly associated with effectiveness, namely:

- a) Authorities and responsibilities of individuals not being defined with adequate clarity (Variable 161).
- b) Inadequate status being given to the administrator of the control system (Variable 168).

Conclusions

The preliminary statistical analyses of eight-eight, large, generally successful, Indian companies highlighted the fact that the majority of these companies had control systems of quite sophisticated design.

Implementation, rather than design, is very clearly the key to effectiveness. However, in developing approaches to minimizing the implementation problems, the tailoring of system characteristics to minimize implementation problems is a distinct possibility. In order to do this, the implementation problems need to be analyzed with regard to their origin. Do they stem from company characteristics, from managerial values, from environmental factors or perhaps, possibly, from inappropriate system design?

The further statistical analysis that is envisaged, coupled with in-depth interviews of various levels of management in selected companies should provide some of the answers, including the critical one of how to minimize problems of implementation and administration.

ANNEXURE I

QUESTIONNAIRE EMPLOYED

INDIAN INSTITUTE OF MANAGEMENT, AHMEDABAD

QUESTIONNAIRE ON MANAGEMENT CONTROL SYSTEMS
DESIGN AND IMPLEMENTATION

A. COMPANY CHARACTERISTICS

1. How many employees does your company have?
2. What activities are included in your company's operations?
Please tick mark the boxes against the activities applicable.
 - a. Mining or harvesting of raw materials ()
 - b. Refining or processing of bulk materials ()
 - c. Fabricating the components of finished products ()
 - d. Assembly of finished products ()
 - e. Distributing products to customers ()
 - f. Providing services to customers ()
3. In how many different locations are the products of your company produced or processed? (If your "product" is a set of services, please indicate the number of service centres.)
 - a. At a single location ()
 - b. Two to three locations ()
 - c. Four to five locations ()
 - d. More than five locations ()
 - e. By others only (purely "distribution" company) ()
4. How many "product lines" (i.e., a group of products which are considered as a single package for most management decisions) does your company produce?
 - a. One product line ()
 - b. Two to three product lines ()
 - c. Four to five product lines ()
 - d. More than five product lines ()
5. How many customers (approximately) _____
6. Please indicate the percentage of the 1971 sales revenue of your company from each of the following types of customers:

<u>Type of customer and product</u>	<u>% of 1971 sales revenue</u>
a. Government(capital goods)	_____
b. Government(consumables/services)	_____
c. Industrial (capital goods)	_____
d. Industrial (consumables/services)	_____
e. Consumer(durable goods)	_____
f. Consumer (consumables/services)	_____

7. Where on the following scales does your company fall?

a. $\frac{1}{1}$ ----- $\frac{1}{2}$ ----- $\frac{1}{3}$ ----- $\frac{1}{4}$ ----- $\frac{1}{5}$
Very dependent on sub-contractors As dependent on sub-contractors as most other companies that I know Not at all dependent on sub-contractors

b. $\frac{1}{5}$ ----- $\frac{1}{4}$ ----- $\frac{1}{3}$ ----- $\frac{1}{2}$ ----- $\frac{1}{1}$
Availability of raw materials is not a problem faced by the company Availability of raw materials is as much of a problem as in most other companies that I know. Availability of raw materials is a critical problem faced by the company.

c. $\frac{1}{1}$ ----- $\frac{1}{2}$ ----- $\frac{1}{3}$ ----- $\frac{1}{4}$ ----- $\frac{1}{5}$
Imported raw material is critical to the company As dependent on imported raw material as most other companies that I know Imported raw material is unimportant to the company

8. Which of the following statements typifies the board of directors of the company?

- a. Only the managing director is involved full time in the running of the company ()
- b. Two or three directors are involved full time in the running of the company ()
- c. An executive committee formed of several directors is involved full time in the running of the company ()
- d. The board of directors is formed primarily of full time executives of the company. ()

9. Please indicate the percentage equity that is held by foreign interests in your company

- 0% ()
- 1-10% ()
- 11-25% ()
- 26-50% ()
- 51-75% ()
- Above 75% ()

Question number	Variable number	Description of "Variable"	No. of companies	% of companies
A.7.b.	011	Availability of raw materials		
		Scale with 1 = critical problems	17	19.32
		2 =	9	10.23
		3 = average	39	44.32
		4 =	8	9.09
		5 = no problem	10	11.36
		and no response	5	5.68
A.7.c	012	Dependence on <u>imported</u> raw-materials		
		Scale with 1 = critical	26	29.55
		2 =	6	6.82
		3 = average	24	27.27
		4 =	9	10.23
		5 = unimportant	17	19.32
		and no response	6	6.82
A.8	013	Involvement of Board of Directors		
		Only Managing director is involved	34	38.64
		2-3 directors involved fulltime	31	35.23
		Executive Committee of several directors		
		involved fulltime	11	12.50
		Board is comprised primarily of full time		
		employees	8	9.09
		No response	4	4.55
A.9	014	Percentage equity held by foreign interests		
		0%	33	37.50
		1% - 10%	5	5.68
		11% - 25%	6	6.82
		26% - 50%	18	20.45
		51% to 75%	14	15.91
		Over 75%	9	10.23
		No response	3	3.41

Question Number	Variable Number	Description of "Variable"	No. of Companies	% of companies
<u>B. OBJECTIVES</u>				
B.1	015	Parameters of objectives - comprehensive		
		No objective	2	2.27
		1 objective	22	25.00
		2 objectives	21	23.86
		3 objectives	20	22.73
		4 objectives	14	15.91
		5 objectives	8	9.09
		No response	1	1.14
B.1	016	Selected parameters of objectives		
		No objectives	2	2.27
		Profits	16	18.18
		ROI	1	1.14
		Profits and ROI	3	3.41
		Profits, ROI and others	59	67.05
		No response	7	7.95
B.2	017	Number of months prior to start of financial year, that objectives are decided upon		
		Less than 1 month	4	4.55
		From 1 to 3 months	44	50.00
		More than 3 to 6 months	31	35.27
		More than 6 to 9 months	1	1.14
		More than 9 months	2	2.27
		No response	6	6.82
B.3	018	Criteria employed in formulating objectives		
		Not applicable, no objectives are developed	1	1.14
		Only 1 of the criteria is considered	11	12.50
		2 of the criteria are considered	11	12.50
		3 of the criteria are considered	17	19.32
		4 of the criteria are considered	16	18.18
		5 of the criteria are considered	16	18.18
		All 6 criteria are considered	15	17.05
		No response	1	1.14
B.3	019	Past performance as a criterion based on which objectives are developed		
		Employed as a criterion	83	94.32
		Not employed as a criterion	4	4.55
		Not applicable	1	1.14

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
B.3	020	Political, social and economic environment as a criterion		
		Employed as a criterion	53	60.23
		Not employed as a criterion	34	38.44
		Not applicable	1	1.14
B.3	021	Competitive trends as a criterion		
		Employed as a criterion	40	45.45
		Not employed as a criterion	47	53.41
		Not applicable	1	1.14
B.3	022	Strengths and weaknesses of the company as criterion		
		Employed as a criterion	57	64.77
		Not employed as a criterion	30	34.09
		Not applicable	1	1.14
B.3	023	Plans for capital projects as a criterion		
		Employed as a criterion	55	62.50
		Not employed as a criterion	32	36.36
		Not applicable plans	1	1.14
B.3	024	Manpower/as a criterion		
		Employed as a criterion	30	34.09
		Not employed as a criterion	51	64.78
		Not applicable	1	1.14

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
<u>C. THE BUDGETING PROCESS</u>				
<u>I Sales Budget</u>				
C.I.1	025	Basis on which the sales budget is prepared		
		Only for the company as a whole	6	6.82
		Geographic region wise	6	6.82
		Product line wise	36	40.91
		Both geographic and product-line wise	36	40.91
		No response	4	4.55
C.I.2	026	Periods into which the sales budget is broken up		
		Not broken up into periods less than a year	14	15.91
		Half-yearly periods	0	0
		Quarterly periods	21	23.86
		Monthly periods	48	54.55
		No response	5	5.68
C.I.3	027	Who prepares the sales budget		
		Sales manager	2	2.27
		Sales manager jointly with staff	19	21.59
		Sales manager jointly with prodn.	21	23.86
		Sales manager jointly with production and purchase	23	26.14
		Other	19	21.59
		No response	4	4.55
C.I.4	028	By whom the sales budget is reviewed before acceptance		
		Not reviewed	2	2.27
		Reviewed by Sales Director	2	2.27
		Reviewed by Sales Director and Controller/ Chief Accountant	5	5.68
		Reviewed by top management	57	64.77
		Reviewed by Sales Director and top Management	7	7.95
		Other	10	11.36
		No response	5	5.68

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
C.I.5	029	Considerations taken into account when developing the sales budget		
		No considerations taken into account	0	0
		1 consideration	15	17.05
		2 considerations	22	25.00
		3 considerations	26	29.55
		4 considerations	17	19.32
		5 considerations	3	3.41
		No response	5	5.68
C.I.5	030	Projections of past sales as a basis for the sales budget		
		Not considered	17	19.32
		Considered	66	75.00
		No response	5	5.68
C.I.5	031	Competition as a basis		
		Not considered	37	42.05
		Considered	46	52.27
		No response	5	5.68
C.I.5	032	Econometric data as a basis		
		Not considered	63	71.59
		Considered	20	22.73
		No response	5	5.68
C.I.5	033	Specific estimates of likely demands from existing and potential customers as a basis		
		Not considered	17	19.32
		Considered	66	75.00
		No response	5	5.68
C.I.5	034	Other bases		
		Not considered	60	68.18
		Considered	23	26.14
		No response	5	5.68

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
<u>II Production Budget</u>				
C.II.1	035	Consideration influencing the production budget		
		No considerations taken into account	2	2.27
		1 consideration	15	17.05
		2 considerations	22	25.00
		3 considerations	29	32.95
		4 considerations	7	7.95
		No response	13	14.77
C.II.1	036	Budgeted sales as a factor in influencing the production budget		
		No considered	7	7.95
		Considered	69	78.41
		No response	12	13.64
C.II.1	037	Inventory levels as a factor		
		Not considered	36	40.91
		Considered	40	45.45
		No response	12	13.64
C.II	038	Availability of raw materials as a factor		
		Not considered	27	30.68
		Considered	49	55.68
		No response	12	13.64
C.II.1	039	Availability of finance as a factor		
		Not considered	60	68.18
		Considered	16	18.18
		No response	12	13.64
C.II.2	040	Quantity of production as an item in the budget document		
		Not included	2	2.27
		Explicitly identified	76	86.36
		No response	10	11.36

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
C.II.2	041	Delivery schedules as an item		
		Not included	57	64.77
		Explicitly identified	21	23.86
		No response	10	11.36
C.II.2	042	Quality of products as an item		
		Not included	54	61.36
		Explicitly identified	24	27.27
		No response	10	11.36
C.II.2	043	Costs at which goods are to be produced as an item		
		Not included	24	27.27
		Explicitly identified	54	61.36
		No response	10	11.36
C.II.3	044	Variable costs as a category when specifying the costs of production		
		Not employed	6	6.82
		Employed	70	79.55
		No response	12	13.64
C.II.3	045	Departmental costs as a category		
		Not employed	22	25.00
		Employed	54	61.36
		No response	12	13.64
C.II.3	046	Non-routine costs as a category		
		Not employed	32	36.36
		Employed	44	50.00
		No response	12	13.64
C.II.3	047	Fixed overhead as a category		
		Not employed	9	10.23
		Employed	67	76.14
		No response	12	13.64
C.II.4	048	"Contribution" or "margin" for products or product lines		
		Not identified	8	9.09
		Identified for product lines	22	25.00
		Identified for individual products	46	52.27
		No response	12	13.64

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
C.II.5	049	Development of "purchase price variances"		
		Not developed	25	28.41
		Developed	13	14.77
		Developed but not allocated to the purchase department	39	44.32
		No response	11	12.50
C.II.6	050	Identification of "standards", in production budget, for materials consumption		
		Not identified	6	6.82
		Identified	71	80.68
		No response	11	12.50
C.II.6	051	"Standards" for planned yield		
		Not identified	19	21.59
		Identified	58	65.91
		No response	11	12.50
C.II.6	052	Other non financial "standards"		
		Not identified	53	60.23
		Identified	24	27.27
		No response	11	12.50
C.II.7	053	Who develops the production budget		
		Production manager	6	6.82
		Production manager jointly with department heads reporting to him	25	28.41
		Production manager jointly with sales executives	17	19.32
		Production manager jointly with sales and purchase executive	26	29.55
		No response	14	15.91

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
C.II.8	054	Who reviews the production budget		
		Not reviewed	0	0
		Production director	3	3.41
		Production director and controller/ chief accountant	4	4.55
		Controller/Chief accountant	2	2.27
		Top management	55	62.50
		Other	13	14.77
		No response	11	12.50
C.II.9	055	Revision if actual production is out ^{of} line with budgeted production		
		Budget is revised	53	60.23
		Budget is not revised	25	28.41
		No response	10	11.36
C.II.10	056	Periods into which the production budget is broken up		
		Not broken up into periods less than a year	10	11.36
		Half-yearly periods	2	2.27
		Quarterly periods	15	17.05
		Monthly periods	51	57.95
		No response	10	11.36

III Overhead Budget

C.III.1	057	Existence of an overhead budget		
		Does not exist	6	6.82
		Exists	76	86.36
		No response	6	6.82
C.III.2	058	Categories into which overhead costs are separated		
		No classification	9	10.23
		Discretionary costs	6	6.82
		Committed costs	4	4.55
		Both discretionary and committed costs	55	62.50
		No response	14	15.91

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
C.III.3	059	Who develops the overhead budget		
		Controller/Chief Accountant	24	27.27
		Heads of line and staff departments jointly	38	43.18
		Other	15	17.05
		No response	11	12.50
C.III.4	060	Whether the overhead budget is reviewed and by whom		
		Not reviewed	2	2.27
		Reviewed by Controller/Chief accountant	8	9.09
		Reviewed by top management	58	65.91
		Reviewed by other	8	9.09
		No response	12	13.64
<u>IV. Company-wide Budget</u>				
C.IV.1	061	Whether PAT/PBT is budget ^{ed} for the company as a whole		
		No	2	2.27
		Yes	82	93.18
		No response	4	4.55
C.IV.2	062	Periods into which the annual cash flow statement is broken up		
		Not applicable	3	3.41
		Only annual cash flows	8	9.09
		Half-yearly periods	3	3.41
		Quarterly periods	11	12.50
		Monthly periods	55	62.50
		Other	5	5.68
		No response	3	3.41
C.IV.3	063	Considerations taken into account when budgeting working capital		
		Not applicable	7	7.95
		None of the considerations	1	1.14
		1 of the considerations	3	3.41
		2 of the considerations	3	3.41
		3 of the considerations	10	11.36
		4 of the considerations	19	21.59
		5 of the considerations	37	42.05
		6 of the considerations	4	4.55
		No response	4	4.55

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
C.IV.3	064	Credit terms given and level of A/c's receivable as a consideration		
		Not taken into account	16	18.18
		Taken into account	68	77.27
		No response	4	4.55
C.IV.3	065	Inventory levels as a consideration		
		Not taken into account	11	12.50
		Taken into account	73	82.95
		No response	4	4.55
C.IV.3	066	Marketable securities, debentures, government securities etc. as a consideration		
		Not taken into account	76	86.36
		Taken into account	8	9.09
		No response	4	4.55
C.IV.3	067	Credit terms received and level of accounts payable as a consideration		
		Not taken into account	21	23.86
		Taken into account	63	71.59
		No response	4	4.55
C.IV.3	068	Bank facilities available, including secured loans as a consideration		
		Not taken into account	19	21.59
		Taken into account	65	73.86
		No response	4	4.55
C.IV.3	069	Dividend requirements as a consideration		
		Not taken into account	37	42.05
		Taken into account	47	53.41
		No response	4	4.55
C.IV.4	070	Whether the company-wide budget is reviewed and if so by whom		
		Not reviewed	0	0
		Board of Directors	28	31.82
		Managing Director	30	34.09
		Other	25	28.41
		No response	5	5.69

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
C. IV.5	071	Action following review of budget		
		Not applicable	1	1.14
		Reasons are suggested	38	43.18
		Revisions are unilaterally decided	42	47.73
		No response	7	7.95
<u>V. Budgeting (General)</u>				
C.V.1	072	Extent of participation in budget development		
		Budget may be finalized without consultation	3	3.41
		Budget finalized only after obtaining opinions of implementing managers	53	60.23
		Budget finalized only after mutual agreement	29	32.95
		No response	3	3.41
C.V.2	073	Frequency of reviews with intent to revise the budget		
		No such planned revisions	32	36.36
		Half-yearly review	37	42.05
		Quarterly reviews	16	18.18
		No response	3	3.41
C.V.3	074	Reasons for budget revisions		
		Budget is never revised	21	23.86
		Revised if actual performance deviates more than a specified percentage from expected performance	19	21.59
		Revised only if there are drastic changes beyond management's control	42	47.73
		No response	6	6.82

Question Number	Variable Number	Description of "Variable"	No. of Companies	% of companies
C.V.4a	075	No. of months ahead of the budget year that budget development is initiated		
		Less than 1 month	0	0
		From 1 to 3 months	30	34.09
		More than 3 to 6 months	40	45.45
		More than 6 to 9 months	7	7.95
		More than 9 months	3	3.41
		No response	8	9.09
C.V.4.b.	076	No. of months ahead that review prior to finalization of the "Company-wide" budget is held		
		Less than 1 month	6	6.82
		From 1 to 3 months	51	57.95
		More than 3 to 6 months	17	19.32
		More than 6 to 9 months	2	2.27
		More than 9 months	4	4.55
		No response	7	7.95
C.V.4.c.	077	No. of months ahead that the "company-wide budget" is finalized		
		Less than 1 month	26	29.55
		From 1 to 3 months	43	48.86
		More than 3 to 6 months	9	10.23
		More than 6 months	1	1.14
		More than 9 months	2	2.27
		No response	7	7.95
C.V.5	078	Break-down of "company-wide budget into further categories		
		Not broken-down	10	11.36
		1 category	19	21.59
		2 categories	20	22.73
		3 categories	17	19.32
		4 categories	19	21.59
		No response	3	3.41
C.V.5	079	Break-down of "company-wide" budget into different geographic regions		
		Not carried out	50	56.82
		Carried out	35	39.77
		No response	3	3.41

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
C.V.5	080	Break-down of "company-wide" budget for different factories within the company		
		Not carried out	35	39.77
		Carried out	50	56.82
		No response	3	3.41
C.V.5	081	For departments within factories		
		Not carried out	34	38.64
		Carried out	51	57.91
		No response	3	3.41
C.V.5	082	For "service" departments		
		Not carried out	36	40.19
		Carried out	49	55.68
		No response	3	3.41

D. THE CONTROL SYSTEM AND PROCESS

D.1	083	No. of reports going to top management daily		
		No reports	50	56.82
		1 report	14	15.91
		2 reports	4	4.55
		3 reports	2	2.27
		4 reports	2	2.27
		5 reports	1	1.14
		No response	15	17.05
D.1	084	Top management reports - weekly		
		No reports	57	64.77
		1 report	11	12.50
		2 reports	3	3.41
		6 reports	1	1.14
		No response	16	18.18

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.1	085	Top management reports - monthly		
		No reports	10	11.36
		1 report	21	23.86
		2 reports	5	5.68
		3 reports	5	5.68
		4 reports	7	7.95
		5 reports	7	7.95
		6 reports	2	2.27
		7 reports	3	3.41
		8 reports	1	1.14
		10 reports	2	2.27
		11 reports	2	2.27
		14 reports	1	1.14
		18 reports	1	1.14
		20 reports	2	2.27
		32 reports	1	1.14
		48 reports	1	1.14
		No response	17	19.32
D.1	086	Top management reports - quarterly		
		No reports	32	36.36
		1 report	21	23.86
		2 reports	7	7.95
		3 reports	2	2.27
		4 reports	2	2.27
		5 reports	4	4.55
		7 reports	1	1.14
		11 reports	1	1.14
		15 reports	2	2.27
		18 reports	1	1.14
		No response	15	17.05
D.1	087	Top management reports - half-yearly		
		No reports	41	46.59
		1 report	17	19.32
		2 reports	6	6.82
		3 reports	3	3.41
		4 reports	1	1.14
		5 reports	2	2.27
		6 reports	1	1.14
		7 reports	1	1.14
		15 reports	1	1.14
		No response	15	17.05

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.1	088	Top management reports - Total		
		No reports	3	3.41
		1 report	13	14.77
		2 reports	7	7.95
		3 reports	8	9.09
		4 reports	5	5.68
		5 reports	6	6.82
		7 reports	3	3.41
		8 reports	6	6.82
		10 reports	2	2.27
		11 reports	1	1.14
		13 reports	1	1.14
		14 reports	1	1.14
		15 reports	1	1.14
		16 reports	1	1.14
		17 reports	1	1.14
		18 reports	3	3.41
		24 reports	1	1.14
		27 reports	1	1.14
		30 reports	1	1.14
		35 reports	1	1.14
		46 reports	1	1.14
		54 reports	1	1.14
		60 reports	1	1.14
		No response	19	21.59
D.1	089	Executive Management reports - daily		
		No reports	36	40.91
		1 report	22	25.00
		2 reports	4	4.55
		3 reports	4	4.55
		4 reports	1	1.14
		5 reports	4	4.55
		7 reports	1	1.14
		11 reports	1	1.14
		No response	15	17.05

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.1	090	Executive Management reports - weekly		
		No reports	41	46.59
		1 report	12	13.64
		2 reports	9	10.23
		3 reports	2	2.27
		4 reports	2	2.27
		5 reports	3	3.41
		6 reports	2	2.27
		29 reports	1	1.14
		No response	16	18.18
D.1	091	Executive management reports - monthly		
		No reports	7	7.95
		1 report	12	13.64
		2 reports	4	4.55
		3 reports	8	9.09
		4 reports	3	3.41
		5 reports	5	5.68
		6 reports	4	4.55
		7 reports	3	3.41
		8 reports	2	2.27
		10 reports	6	6.82
		11 reports	3	3.41
		12 reports	2	2.27
		15 reports	1	1.14
		16 reports	2	2.27
		17 reports	2	2.27
		18 reports	1	1.14
		20 reports	2	2.27
		31 reports	1	1.14
		No response	20	22.73
D.1	092	Executive management reports - quarterly		
		No reports	38	43.18
		1 report	14	15.91
		2 reports	6	6.82
		3 reports	2	2.27
		4 reports	5	5.68
		5 reports	4	4.55
		6 reports	1	1.14
		7 reports	1	1.14
		15 reports	1	1.14
		33 reports	1	1.14
		No response	15	17.05

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.1	093	Executive management reports - half-yearly		
		No reports	43	48.86
		1 report	16	18.18
		2 reports	4	4.55
		3 reports	1	1.14
		4 reports	3	3.41
		5 reports	3	3.41
		6 reports	2	2.27
		10 reports	1	1.14
		No response	15	17.05
D.1	094	Executive management reports - Total		
		No reports	3	3.41
		1 report	8	9.09
		2 reports	3	3.41
		3 reports	4	4.55
		4 reports	1	1.14
		5 reports	5	5.68
		6 reports	3	3.41
		7 reports	5	5.68
		8 reports	1	1.14
		10 reports	4	4.55
		11 reports	1	1.14
		12 reports	2	2.27
		13 reports	1	1.14
		14 reports	7	7.95
		15 reports	2	2.27
		16 reports	5	5.68
		17 reports	3	3.41
		18 reports	2	2.27
		19 reports	1	1.14
		20 reports	1	1.14
		21 reports	1	1.14
		23 reports	2	2.27
		25 reports	1	1.14
		26 reports	1	1.14
		27 reports	1	1.14
		35 reports	1	1.14
		57 reports	1	1.14
		100 reports	1	1.14
		No response	17	19.32

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.1	095	Operational Management reports - daily		
		No reports	28	31.82
		1 report	19	21.59
		2 reports	8	9.09
		3 reports	3	3.41
		4 reports	4	4.55
		5 reports	2	2.27
		6 reports	2	2.27
		8 reports	1	1.14
		9 reports	3	3.41
		13 reports	1	1.14
		15 reports	1	1.14
		17 reports	1	1.14
		No response	15	17.05
D.1	096	Operational Management reports - weekly		
		No reports	41	46.59
		1 report	14	15.91
		2 reports	9	10.23
		3 reports	2	2.27
		4 reports	1	1.14
		5 reports	2	2.27
		6 reports	2	2.27
		No response	17	19.32
D.1	097	Operational Management reports - monthly		
		No reports	11	12.50
		1 report	14	15.91
		2 reports	7	7.95
		3 reports	9	10.23
		4 reports	6	6.82
		5 reports	3	3.41
		6 reports	1	1.14
		7 reports	2	2.27
		8 reports	5	5.68
		10 reports	3	3.41
		11 reports	1	1.14
		12 reports	2	2.27
		14 reports	1	1.14
		15 reports	1	1.14
		17 reports	2	2.27
		18 reports	1	1.14
		20 reports	1	1.14
		26 reports	1	1.14
		39 reports	1	1.14
		No response	16	18.18

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.1	098	Operational Management reports - quarterly		
		No reports	41	46.59
		1 report	15	17.05
		2 reports	5	5.68
		3 reports	1	1.14
		4 reports	4	4.55
		5 reports	5	5.68
		10 reports	1	1.14
		16 reports	1	1.14
		No response	15	17.05
D.1	099	Operational Management reports - half-yearly		
		No reports	49	55.68
		1 report	15	17.05
		2 reports	3	3.41
		4 reports	1	1.14
		5 reports	2	2.27
		6 reports	1	1.14
		8 reports	1	1.14
		12 reports	1	1.14
		No response	15	17.05
D.1	100	Operational Management reports - Total		
		No reports	4	4.55
		1 report	8	9.09
		2 reports	6	6.82
		3 reports	4	4.55
		4 reports	4	4.55
		5 reports	6	6.82
		6 reports	4	4.55
		7 reports	2	2.27
		8 reports	3	3.41
		10 reports	4	4.55
		11 reports	2	2.27
		14 reports	5	5.68
		15 reports	2	2.27
		16 reports	1	1.14
		17 reports	1	1.14
		18 reports	1	1.14
		21 reports	2	2.27
		22 reports	1	1.14
		23 reports	1	1.14
		24 reports	1	1.14
		25 reports	1	1.14
		27 reports	1	1.14
		29 reports	2	2.27

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
		30 reports	1	1.14
		31 reports	1	1.14
		43 reports	1	1.14
		49 reports	1	1.14
		63 reports	1	1.14
		No response	17	19.32
D.2	101	Nature of report on <u>sales</u> product line-wise going to top management		
		No report	12	13.64
		Actuals only	13	14.77
		Variance	58	65.91
		No response	5	5.68
D.2	102	<u>Sales</u> going to Executive Management		
		No report	2	2.27
		Actuals only	9	10.23
		Variance	72	81.82
		No response	5	5.68
D.2	103	<u>Sales</u> going to Operational Management		
		No report	8	9.09
		Actuals only	12	13.64
		Variance	63	71.59
		No response	5	5.68
D.2	104	Variable costs of <u>production</u> going to top management		
		No report	33	37.5
		Actuals only	3	3.41
		Variance	47	53.41
		No response	5	5.68
D.2	105	<u>Production</u> to executive management		
		No report	23	26.17
		Actuals only	3	3.41
		Variance	57	64.77
		No response	5	5.68
D.2	106	<u>Production</u> to operational Management		
		No report	31	35.23
		Actuals only	5	5.68
		Variance	47	53.41
		No response	5	5.68

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.2	107	Product line <u>contribution</u> to top management		
		No report	35	39.77
		Actuals only	4	4.55
		Variance	43	48.86
		No response	6	6.82
D.2	108	<u>Contribution</u> to executive management		
		No report	29	32.95
		Actuals only	5	5.68
		Variance	48	54.55
		No response	6	6.82
D.2	109	<u>Contribution</u> to operational management		
		No report	42	47.73
		Actuals only	6	6.82
		Variance	34	38.64
		No response	6	6.82
D.2	110	<u>Related Overhead</u> (Activity-wise or product wise)		
		No report	37	42.05
		Actuals only	4	4.55
		Variance	41	46.59
		No response	6	6.82
D.2	111	<u>Related overhead</u> to executive management		
		No report	23	26.14
		Actuals only	0	0
		Variance	59	67.05
		No response	6	6.82
D.2	112	Related overhead to operational management		
		No report	31	35.23
		Actuals only	2	2.27
		Variance	49	55.68
		No response	6	6.82

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.2	113	<u>Service-department overheads</u> (company-wide) going to top management		
		No report	40	45.45
		Actuals only	2	2.27
		Variance	40	45.45
		No response	6	6.82
D.2	114	<u>Service department overheads</u> to executive management		
		No report	26	29.55
		Actuals only	0	0
		Variance	56	63.64
		No response	6	6.82
D.2	115	<u>Service department overheads</u> going to operational management		
		No report	35	39.77
		Actuals only	1	1.14
		Variance	46	52.27
		No response	6	6.82
D.2	116	<u>PBT/PAT</u> going to top management		
		No report	4	4.55
		Actuals only	11	12.50
		Variance	67	76.14
		No response	6	6.82
D.2	117	<u>PBT/PAT</u> to executive management		
		No report	17	19.32
		Actuals only	5	5.68
		Variance	60	68.18
		No response	6	6.82
D.2	118	<u>PBT/PAT</u> to operational management		
		No report	46	52.27
		Actuals only	2	2.27
		Variance	34	38.64
		No response	6	6.82

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.2	119	Quality, yield, efficiency, capacity utilization and similar <u>non-financial items</u> going to top management		
		No report	38	43.18
		Actuals only	6	6.82
		Variance	38	43.18
		No response	6	6.82
D.2	120	<u>Non-financial</u> items to executive management		
		No report	13	14.77
		Actuals only	13	14.77
		Variance	56	63.64
		No response	6	6.82
D.2	121	<u>Non-financial</u> items to operational management		
		No report	14	15.91
		Actuals only	15	17.05
		Variance	53	60.23
		No response	6	6.82
D.2	122	Title of the executive administering the MCS		
		Controller	11	12.50
		Chief Accountant	9	10.23
		Other	62	70.45
		No response	6	6.82
D.2	123	Executive to whom the individual administering the M C S		
		Chief Executive	62	70.45
		Finance Director	8	9.09
		Chief Accountant	2	2.27
		Other	10	11.36
		No response	6	6.82
D.2	124	Frequency of reviews of actual versus expected performance		
		No such reviews	3	3.41
		Review after six months	6	6.82
		Review every quarter	21	23.86
		Review every month	55	62.50
		No response	3	3.41

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.6	125	Number of days after the end of each period (within the budget year) for which reports are generated, within which the <u>sales</u> report is generated.		
		Within 5 days	32	36.36
		Within 10 days	29	32.95
		Within 15 days	15	17.05
		Within 1 month	8	9.09
		Within 1 1/2 months	0	0
		Within 2 months	0	0
		Usually more than 2 months	1	1.14
		No response	3	3.41
D.6	126	Number of days for the <u>production</u> report		
		Within 5 days	38	43.18
		Within 10 days	20	22.73
		Within 15 days	9	10.23
		Within 1 month	10	11.36
		Within 1 1/2 months	2	2.27
		Within 2 months	0	0
		Usually more than 2 months	0	0
		No response	9	10.23
D.6	127	Number of days for the <u>overhead</u> report		
		Within 5 days	3	3.41
		Within 10 days	6	6.82
		Within 15 days	27	30.68
		Within 1 month	36	40.91
		Within 1 1/2 months	4	4.55
		Within 2 months	3	3.41
		Usually more than 2 months	2	2.27
		No response	7	7.95
D.6	128	Number of days for <u>profit</u> report		
		Within 5 days	3	3.41
		Within 10 days	8	9.09
		Within 15 days	27	30.68
		Within 1 month	35	39.77
		Within 1 1/2 months	4	4.55
		Within 2 months	3	3.41
		Usually more than 2 months	2	2.27
		No response	6	6.82

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.6	129	Number of days for <u>non-financial</u> indicators including environmental information.		
		Within 5 days	9	10.23
		Within 10 days	6	6.82
		Within 15 days	20	22.73
		Within 1 month	20	22.73
		Within 1½ months	2	2.27
		Within 2 months	2	2.27
		Usually more than 2 months	1	1.14
		No response	28	31.82
D.7	130	Means of preparation of the reports		
		Manual	41	46.59
		Punched cards	12	13.64
		EDP	31	35.23
		Other	2	2.27
		No response	2	2.27
D.8	131	Number of types of actions, if necessary after a review of performance		
		No applicable	2	2.27
		No actions	2	2.27
		1 type of action	25	28.41
		2 types of actions	31	35.23
		3 types of actions	17	19.32
		4 types of actions	6	6.82
		5 types of actions	2	2.27
		No response	3	3.41
D.8	132	Modification of pricing policies or specific product prices after formal review of performance		
		Not undertaken	42	47.73
		Undertaken if necessary	42	47.73
		No response	4	4.55
D.8	133	Undertaking of new sales promotion activities		
		Not undertaken	32	36.36
		Undertaken if necessary	52	59.09
		No response	4	4.55

Question Number	Variable Number	Description of "Variable"	No. of Companies	% of companies
D.8	134	Redeployment of resources such as men and money		
		Not undertaken	35	39.77
		Undertaken if necessary	49	55.68
		No response	4	4.55
D.8	135	Other actions		
		Not undertaken	57	64.77
		Undertaken if necessary	27	30.68
		No response	4	4.55
D.9	136	Performance evaluation and reward/punishment of executives on the basis of variances from budgeted performance		
		Not applicable on variances developed	13	14.77
		No evaluation on this basis	14	15.91
		Evaluation is done on this basis	58	65.91
		No response	3	3.41
D.10	137	Number of professional staff engaged primarily in administering the M C S		
		No professional staff	1	1.14
		1 to 3 professional staff	31	35.23
		4 to 10 professional staff	22	25.00
		11 to 25 professional staff	7	7.95
		No response	26	29.55
D.10	138	Number of clerical staff engaged primarily in administering the M C S		
		No clerical staff	3	3.41
		1 to 5 clerical staff	30	34.09
		6 to 10 clerical staff	13	14.77
		11 to 20 clerical staff	5	5.68
		21 to 50 clerical staff	7	7.95
		More than 100	1	1.14
		No response	27	30.68

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.10	139	Total number of professional and clerical staff engaged primarily in administering the M C S		
		1 to 10	34	38.64
		11 to 20	11	12.50
		21 to 50	11	12.50
		51 to 100	4	4.55
		More than 100	1	1.14
		No response	28	31.82
D.11	140	Percentage of time spent by the Chief Executive in setting up the budget (300 days = 100% of C.E.'s time)		
		0-5%	47	53.41
		6-10%	21	23.86
		11-20%	3	3.41
		21-35%	0	0
		More than 35%	0	0
		No response	17	19.32
D.11	141	Percentage of time spent by the Chief Executive in performance evaluation based on the budget		
		0-5%	27	30.68
		6-10%	28	31.82
		11-20%	10	11.36
		21-35%	4	4.55
		More than 35%	0	0
		No response	19	21.59
D.12	142	Use or "standard costs"		
		Not employed	27	30.68
		Employed	53	60.23
		No response	8	9.09
D.13	143	Basis on which "standard costs" were developed		
		Not applicable	22	25.00
		Industrial Engg. analysis	8	9.09
		Past performance	17	19.32
		Other	3	3.41
		Both industrial engineering and past performance	27	30.68
		No response	11	12.50

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
D.14	144	Existence of "responsibility centres"		
		No responsibility centres	13	14.77
		Cost centres	35	39.77
		Profit centres	6	6.82
		Both cost and profit centres	30	34.09
		No response	4	4.55
D.15	145	Basis of transfer-prices		
		No applicable	40	45.45
		Based on market-value	6	6.82
		Based on standard cost plus a specified mark-up	9	10.23
		Negotiated by managers of concerned responsibility centres	8	9.09
		Other	18	20.45
		No response	7	7.95
D.16	146	Review of <u>non-financial</u> indicators of performance by the Chief Executive		
		Not carried out	17	19.32
		Carried out	63	71.59
		No response	8	9.09

E. PROBLEMS EXPERIENCED

E.1.a	147	The degree of difficulty experienced in collecting data relating to <u>sales volume</u>		
		1. Difficult to obtain	3	3.41
		2	1	1.14
		3	10	11.36
		4	9	10.23
		5 No problem	62	70.45
		No response	3	3.41
E.1.b	148	Difficulty with regard to <u>sales price</u>		
		1 Difficult to obtain	2	2.27
		2	1	1.14
		3	7	7.95
		4	12	13.64
		5 No problem	61	69.32
		No response	5	5.68

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
E.I.c	149	Difficulty with regard to <u>Production Volume</u>		
		1 Difficult to obtain	1	1.14
		2	2	2.27
		3	5	5.68
		4	5	5.68
		5 No problem	65	73.86
		No response	10	11.36
E.I.d.	150	Difficulty with regard to <u>production costs</u>		
		1 Difficult to obtain	2	2.27
		2	2	2.27
		3	20	22.73
		4	14	15.91
		5 No problem	40	45.45
		No response	10	11.36
E.2.a	151	Problem caused by financial accounting system impeding the control system because financial accounting practice is based on company law practice		
		1 Serious problems	2	2.27
		2	0	0
		3 Average	33	37.50
		4	11	12.50
		5 No problem	37	42.05
		No response	5	5.68
E.2 b	152	Problem caused by financial accounting system impeding the control system because financial accounting demands an unnecessary degree of accuracy and hence causes delays		
		1 Serious problem	1	1.14
		2	4	4.55
		3 Average	28	31.82
		4	15	17.05
		5 No problem	35	39.77
		No response	5	5.68

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
E.3.a	153	Implementation problem caused by <u>delays in data submission</u>		
		1 Serious problem	6	6.82
		2	9	10.23
		3 Average	31	35.23
		4	25	28.41
		5 No problem	14	15.91
		No response	3	3.41
E.3.b	154	Implementation problem caused by lack of reliability of data...		
		1 Serious problem	2	2.27
		2	3	3.41
		3 Average	30	34.09
		4	9	10.23
		5 No problem	39	44.32
		No response	5	5.68
E.3.c.	155	Implementation problems caused by data being provided by several different sources		
		1 Serious problem	3	3.41
		2	8	9.09
		3 Average	28	31.82
		4	26	29.55
		5 No problem	18	20.45
		No response	5	5.68
E.3.d.	156	Implementation problem caused by excessive time being required to obtain data of adequate accuracy		
		1 Serious problem	2	2.27
		2	3	3.41
		3 Average	28	31.82
		4	25	28.41
		5 No problem	26	29.55
		No response	4	4.55

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
E.3.e	157	Implementation problem caused by delay in availability of data caused by use of data of excessive accuracy		
		1 Serious problem	1	1.14
		2	4	4.55
		3 Average	22	25.00
		4	22	25.00
		5 No problem	33	37.50
		No response	6	6.82
E.3.f	158	Implementation problem caused by excessive time being required to compile and process the data		
		1 Serious problem	0	0
		2	9	10.23
		3 Average	25	28.41
		4	24	27.27
		5 No problem	26	29.55
		No response	4	4.55
E.3.g	159	Implementation problems caused by changes from the assumptions made at the budget development time		
		1 Serious problem	2	2.27
		2	8	9.09
		3 Average	35	39.77
		4	18	20.45
		5 No problem	19	21.59
		No response	6	6.82
E.3.h	160	Implementation problems caused by the periods for which variance reports are developed being too short to provide meaningful data		
		1 Serious problem	0	0
		2	0	0
		3 Average	18	20.45
		4	12	13.64
		5 No problem	53	60.23
		No response	5	5.68

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
E-3.i	161	Implementation problems caused by the authorities and responsibilities of individuals not being defined with adequate clarity		
		1 Serious problem	6	6.82
		2	5	5.68
		3 Average	23	26.14
		4	9	10.23
		5 No problem	40	45.45
		No response	5	5.68
E.3.j	162	Implementation problems caused by the responsibility for variances being shared by more than one executive		
		1 Serious problem	3	3.41
		2	11	12.50
		3 Average	32	36.36
		4	17	19.32
		5 No problem	20	22.73
		No response	5	5.68
E.3.k	163	Implementation problem caused by the standards set in the budget being accepted by operational management		
		1 Serious problem	0	0
		2	0	0
		3 Average	18	20.45
		4	11	12.50
		5 No problem	51	57.95
		No response	8	9.09
E.3.l	164	Implementation problem caused by differences of opinion regarding the controllability of the variances		
		1 Serious problem	2	2.27
		2	6	6.82
		3 Average	29	32.95
		4	17	19.32
		5 No problem	28	31.82
		No response	6	6.82

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
E.3.m	165	Implementation problem caused by differences between the company's objectives and the objectives of individual activities		
		1 Serious problem	1	1.14
		2	3	3.41
		3 average	22	25.00
		4	16	18.18
		5 No problem	40	45.45
		No response	6	6.82
E.3.n	166	Implementation problems caused by standards in budget being consciously set at a higher level than are reasonably attainable		
		1 Serious problem	1	1.14
		2	2	2.27
		3 Average	22	25.00
		4	24	27.27
		5 No problem	33	37.50
		No response	6	6.82
E.3.o	167	Implementation problem caused by executives resenting the control system and viewing it as a curb on their innovative ideas		
		1 Serious problem	0	0
		2	2	2.27
		3 Average	22	25.00
		4	17	19.32
		5 No problem	42	47.73
		No response	5	5.68
E.3.p	168	Implementation problem caused by the status of the administrator or the control system being inadequate		
		1 Serious problem	1	1.14
		2	3	3.41
		3 Average	9	10.23
		4	7	7.95
		5 No problem	61	69.32
		No response	7	7.95

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
E.3.q	169	Implementation problem caused by top management not providing adequate resources to effectively implement the control system		
		1 Serious problem	0	0
		2	2	2.27
		3 Average	12	13.64
		4	9	10.23
		5 No problem	60	68.18
		No response	5	5.68
E.3.r	170	Implementation problem caused by top management not paying adequate attention to the reports generated by the control system and not acting on the reports		
		1 Serious problem	1	1.14
		2	0	0
		3 Average	12	13.64
		4	16	18.18
		5 No problem	54	61.36
		No response	5	5.68
E.4.a.	171	The frequency of occurrence of variances which are the responsibility of both the production and purchase departments		
		1 Very frequently	6	6.18
		2	8	9.09
		3 Average	32	36.36
		4	15	17.05
		5 Rarely	13	14.77
		No response	14	15.91
E.4.b.	172	The frequency of occurrence of variances which are the responsibility of both the Production and Personnel Departments		
		1 Very frequently	4	4.55
		2	4	4.55
		3 Average	26	29.55
		4	22	25.00
		5 Rarely	20	22.73
		No response	12	13.64

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
E.4.c	173	The frequency of occurrence of variances which are the responsibility of both the Production and Maintenance Departments		
		1 Very frequently	3	3.41
		2	6	6.82
		3 Average	39	44.32
		4	15	17.05
		5 Rarely	13	14.77
		No response	12	13.64
E.4.d	174	The frequency of occurrence of variances which are the responsibility of both the Production and Sales Departments		
		1 Very frequently	5	5.68
		2	12	13.64
		3 Average	31	35.23
		4	10	11.36
		5 Rarely	18	20.45
		No response	12	13.64
E.4.e	175	The frequency of occurrence of variances which are the responsibility of both the Sales and Personnel Departments		
		1 Very frequently	1	1.14
		2	0	0
		3 Average	20	22.73
		4	20	22.73
		5 Rarely	36	40.91
		No response	11	12.50
E.4.f	176	The frequency of occurrence of variance which are the responsibility of both the Sales and Finance Departments		
		1 Very frequently	1	1.14
		2	3	3.41
		3 Average	16	18.18
		4	25	28.41
		5 Rarely	34	38.64
		No response	9	10.23

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
<u>F. EFFECTIVENESS</u>				
F.1.a	177	Respondent's understanding of top managements assessment of the effectiveness of the control system with regard to <u>Production</u>		
		1 Very effective	25	28.41
		2	16	29.55
		3 Average	20	22.73
		4	7	7.95
		5 Not at all effective	1	1.14
		No response	9	10.23
F.1.b	178	Effectiveness with regard to <u>Sales</u>		
		1 Very effective	25	28.41
		2	29	32.95
		3 Average	26	29.55
		4	3	3.41
		5 Not at all effective	0	0
		No response	5	5.68
F.1.c	179	Effectiveness with regard to <u>overhead</u>		
		1 Very effective	17	19.32
		2	22	25.00
		3 Average	32	36.36
		4	9	10.23
		5 Not at all effective	3	3.41
		No response	5	5.68
F.1.d	180	Effectiveness with regard to <u>costs</u>		
		1 Very effective	22	25.00
		2	22	25.00
		3 Average	28	31.82
		4	9	10.23
		5 Not at all effective	1	1.14
		No response	6	6.82

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
F.I.e.	181	Effectiveness with regard to <u>profit</u>		
		1 Very effective	29	32.95
		2	24	27.27
		3 Average	19	21.59
		4	7	7.95
		5 Not at all effective	2	2.27
		No response	7	7.95
F.I.f.	182	Effectiveness with regard to overall corporate performance		
		1 Very effective	22	25.00
		2	30	34.09
		3 Average	22	25.00
		4	7	7.95
		5 Not at all effective	1	1.14
		No response	6	6.82

ANNEXURE II

FREQUENCY DISTRIBUTION OF VARIABLES
IN THE COMPUTERIZED DATA BANK
(obtained from Questionnaire
Data)

FREQUENCY DISTRIBUTIONS OF VARIABLES IN THE COMPUTERIZED
DATA BANK ON MANAGEMENT CONTROL SYSTEMS.

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
Nil	001	Questionnaire number		
<u>A. COMPANY CHARACTERISTICS</u>				
A.1	002	Number of employees		
		500 or less	7	7.95
		501 to 1000	8	9.09
		1001 to 3000	29	32.95
		3001 to 5000	14	15.91
		Over 5000	25	28.41
		No response	5	5.68
A.2	003	Extent of vertical integration		
		Only 1 activity	30	34.09
		2 activities	22	25.00
		3 activities	17	19.32
		4 activities	15	17.05
		5 activities	2	2.27
		6 activities	2	2.27
		No response	0	0
A.3	004	Number of production locations		
		Only 1 location	36	40.91
		2 to 3 locations	20	22.73
		4 to 5 locations	11	12.50
		More than 5 locations	18	20.45
		No production activity	2	2.27
		No response	1	1.14
A.4	005	Number of product lines		
		1. product line	14	15.91
		2 to 3 product lines	23	26.14
		4 to 5 product lines	10	11.36
		More than 5 product lines	35	39.77
		No response	6	6.82

Question Number	Variable Number	Description of "Variable"	No. of companies	% of companies
A.5	006	Number of customers		
		100 or less	12	13.64
		101 to 500	9	10.23
		501 to 3000	21	23.86
		3001 to 10,000	15	17.05
		over 10,000	15	17.05
		No response	16	18.18
A.6	007	Number of different types of customers		
		Only 1 type (Govt./Industrial/Consumer)	18	20.45
		2 types	29	32.95
		3 types	25	28.41
		No response	16	18.18
A.6	008	Primary type of customer		
		More than 75% to Govt.	0	(
		More than 75% of sales to industry	19	21.09
		More than 75% of sales to consumers	28	31.82
		No primary customer	25	28.41
		No response	16	18.18
A.6	009	Primary type of product		
		More than 75% of the products are capital/ durable goods	15	17.05
		More than 75% of products are consumables	49	55.68
		No primary product	7	7.96
		No response	17	19.32
A.7.a	010	Dependence on sub contracts		
		Scale with 1 = very dependent	4	4.55
		2 =	8	9.09
		3 = average	15	17.05
		4 =	22	25.00
		5 = Not at all dependent	34	38.64
		and No response	5	5.68

CORRELATION BETWEEN MEASURES OF EFFECTIVENESS, AND
DESIGN FEATURES AND IMPLEMENTATION PROBLEMS.

VARIABLE 162: Effectiveness with regard to Overall Corporate Performance

Sl. No.	Variable No.	Description	Level of Significance	Chi-Square	Contingency Coefficient	Degrees of Freedom
1	2	Number of employees	N.S.			
2.	4	Number of production locations	N. S.			
3.	5	Number of product lines	N. S.			
4.	9	Primary type of product	N. S.			
5.	11	Availability of raw materials	N. S.			
6.	13	Involvement of Board of Directors	N. S.			
7.	14	Percentage equity held by foreign interests	N. S.			
8.	16	Selected parameters of objectives	N. S.			
9.	72	Extent of participation in budget development	N. S.			
10.	73	Frequency of reviews with intent to revise the budget	N. S.			
11.	74	Reasons for budget revisions	5%	11.0359	.350103	4
12.	140	Percentage of time spent by the Chief Executive in setting up the budget	N. S.			
13.	141	Percentage of time spent by the Chief Executive in performance evaluation based on the budget	N. S.			
14.	153	Implementation problems caused by <u>delays in data submission</u>	5%	10.1054	.331234	4

Sl. No.	Variable No.	Description	Level of Significance	Chi-Square	Contingency Coefficient	Degrees of Freedom
15	154	Implementation problem caused by lack of reliability of data	1%	13.8904	.382602	4
16	155	Implementation problem caused by data being provided by several different sources	N. S.			
17	156	Implementation problem caused by excessive time being required to obtain data of adequate accuracy	1%	13.8179	.381747	4
18	157	Implementation problem caused by delay in availability of data caused by use of data of excessive accuracy	1%	19.6167	.443759	4
19	158	Implementation problem caused by excessive time being required to compile and process the data	10%	8.34835	.303977	4
20	159	Implementation problem caused by changes from the assumptions made at the budget development time	5%	10.8182	.345137	4
21	160	Implementation problems caused by the periods for which variance reports are developed being too short to provide meaningful data	5%	11.0076	.345887	4
22	161	Implementation problems caused by the authorities and responsibilities of individuals not being defined with adequate clarity	1%	15.1082	.396485	4

Variable No.	Description	Level of Significance	Chi-Square	Contingency Coefficient	Degrees of Freedom
23	162 Implementation problems caused by the responsibility for variances being shared by more than one executive	N.S.			
24	163 Implementation problem caused by the standards set in the budget not being accepted by operational management	10%	8.43465	.189116	4
25	164 Implementation problem caused by differences of opinion regarding the controllability of the variances	10%	9.53946	.326403	4
26	165 Implementation problem caused by differences between the company's objectives and the objectives of individual activities	5%	11.0427	.348269	4
27	166 Implementation problems caused by standards in budget being consciously set at a higher level than are reasonably attainable	N. S.			
28	167 Implementation problem caused by executives resenting the control system and viewing it as a curb on their innovative ideas	1%	14.2936	.387292	4
29	168 Implementation problem caused by the status of the administrator of the control system being inadequate	1%	18.586	.436415	4
30	169 Implementation problem caused by top management not providing adequate resources to effectively implement the control system	1%	14.1118	.385189	4
31	170 Implementation problem caused by top management not paying adequate attention to the reports generated by the control system and not acting on the reports	5%	11.6312	.354352	4

VARIABLE 181: Effectiveness with regard to Profit

Sl. No.	Variable No.	Description	Level of Significance	Chi-Square	Contingency Coefficient	Degrees of Freedom
1	2	Number of employees	N. S.			
2.	4	Number of production locations	N. S.			
3.	5	Number of product lines	10%	11.1416	.353535	6
4.	9	Primary type of product	N. S.			
5.	11	Availability of raw material	N. S.			
6.	13	Involvement of Board of Directors	N. S.			
7.	14	Percentage of equity held by foreign interests	10%	9.34201	.332811	4
8.	27	Who prepares the sales budget	N. S.			
9.	30	Projections of past sales as a basis for the sales budget	N. S.			
10.	31	Competition as a basis	N. S.			
11.	32	Econometric data as a basis	N. S.			
12.	33	Specific estimates of likely demands from existing and potential customers as a basis	N. S.			
13.	37	Inventory levels as a factor	N. S.			
14.	38	Availability of raw materials as a factor	5%	6.2423	.278914	2
15.	39	Availability of finance as a factor	N. S.			
16.	43	Costs at which goods are to be produced as an item	1%	10.5136	.350637	2
17.	44	Variable costs as a category when specifying the costs of production	N. S.			
18.	45	Departmental costs as a category	10%	6.48406	.285617	2
19.	46	Non-routine costs as a category	N. S.			
20.	47	Fixed overhead as a category	N. S.			

Sl. No.	Variable No.	Description	Level of Significance	Chi-Square	Contingency Coefficient	Degrees of Freedom
21	48	"Contribution" or "margin" for products or product lines	N. S.			
22	49	Development of "purchase price variances"	1%	7.90438	.310656	4
23	50	Identification of "standards", in production budget, for materials consumption	N. S.			
24	61	Whether EAT/EBT is budgeted for the company as a whole	N. S.			
25	62	Periods into which the annual cash flow statement is broken up	N. S.			
26	64	Credit terms given and level of A/c's receivable as a consideration	N. S.			
27	65	Inventory levels as a consideration	N. S.			
28	67	Credit terms received and level of accounts payable as a consideration	N. S.			
29	68	Bank facilities available, including secured loans as a consideration	N. S.			
30	70	Whether the company-wide budget is reviewed and if so by whom	N. S.			

VARIABLE 18C: Effectiveness with regard to Costs

1.	43	Costs at which goods are to be produced as an item	1%	10.3247	.349914	2
2.	44	Variable costs as a category when specifying the costs of production	N. S.			
3.	45	Departmental costs as a category	10%	5.46027	.265502	2
4.	50	Identification of "standards", in production budget, for materials consumption	N. S.			

VARIABLE 179: Effectiveness with regard to Overhead

Sl. No.	Variable No.	Description	Level of Significance	Chi-Square	Contingency Coefficient	Degrees of Freedom
1.	57	Existence of an overhead budget	1%	9.30881	.326526	2
2.	58	Categories into which overhead costs are separated	N. S.			
3.	59	Who develops the overhead budget	N. S.			

VARIABLE 178: Effectiveness with regard to Sales

1.	4	Number of product locations	N. S.			
2.	5	Number of product lines	N. S.			
3.	6	Number of customers	10%	14.0293	.413555	8
4.	8	Primary type of customer	N. S.			
5.	9	Primary type of product	N. S.			
6.	25	Basis on which the sales budget is prepared	N. S.			
7.	26	Periods into which the sales budget is broken up	N. S.			
8.	27	Who prepares the sales budget	1%	20.1401	.447126	
9.	28	By whom the sales budget is reviewed before acceptance	N. S.			
10.	30	Projections of past sales as basis for the sales budget	N. S.			
11.	31	Competition as a basis	N. S.			
12.	32	Econometric data as a basis	N. S.			
13.	33	Specific estimates of likely demands from existing and potential customers as a basis	N. S.			
14.	57	Existence of an overhead budget	2%	8.26238	.309487	2

VARIABLE 177: Effectiveness with regard to Production

Sl. No.	Variable No.	Description	Level of Significance	Chi-Square	Contingency Coefficient	Degrees of Freedom
1	4	Number of production locations	N. S.			
2.	5	Number of product lines	N. S.			
3.	11	Availability of raw materials	N. S.			
4.	36	Budgeted sales as a factor in influencing the production budget	N. S.			
5.	37	Inventory levels as a factor	N. S.			
6.	38	Availability of raw materials as a factor	N. S.			
7.	39	Availability of finance as a factor	N. S.			
8.	41	Delivery schedules as an item	N. S.			
9.	43	Costs at which goods are to be produced as an item	1%	4.90138	.246139	2
10.	44	Variable costs as a category when specifying the costs of production	N. S.			
11	49	Development of "purchase price variances"	N. S.			
12.	50	Identification of "standards", in production budget, for materials consumption	N. S.			
13.	53	Who develops the production budget	N. S.			
14.	54	Who reviews the production budget	N. S.			
15.	56	Periods into which the production budget is broken up	N. S.			

ANNEXURE III

DISTRIBUTION OF VARIABLES

COMPUTERIZED DATA BANK.

(PUBLISHED FINANCIAL STATEMENTS)

B. OBJECTIVES

1. Are objectives developed for your company in the following terms before the start of a financial year? Please tick mark the boxes against the objectives which apply to your company.
 - a. Profits (before or after tax) ()
 - b. Return on investment ()
 - c. Earnings (i.e., profit after tax) per share ()
 - d. Growth in sales over the previous year ()
 - e. Growth in market share over the previous year ()
 - f. None of the above ()

2. How many months prior to the start of the financial year are these objectives decided upon? _____

3. Which of the following criteria do you consider when setting up these objectives for your company?
 - a. Not applicable. No objectives are developed ()
 - b. Past performance of the company ()
 - c. Political, social, and economic environment ()
 - d. Likely actions and performance of competitors ()
 - e. Strengths and weaknesses of the company ()
 - f. The company's plans for capital projects ()
 - g. The company's manpower recruitment and training plan ()

C. THE BUDGETING PROCESS

Note: If your company does not develop or employ budgets, please skip this section of the questionnaire and move on to Section D.

I. SALES BUDGET

1. Is your sales budget prepared on the following bases?
 - a. Budgeted on a product line basis ()
 - b. Budgeted on a geographic region-wise basis ()
 - c. Budgeted only for the company as a whole ()

2. Is the sales budget for the forthcoming budget year broken up into:
 - a. Half-yearly periods? ()
 - b. Quarterly periods? ()
 - c. Monthly periods? ()
 - d. Not broken up into periods of less than a year ()

3. Who prepares the sales budget?
 - a. Sales manager ()
 - b. Sales manager jointly with staff ()

- c. Sales manager jointly with production ()
 - d. Sales manager jointly with production and purchase ()
 - e. Any other (Please specify) _____ ()
4. Is the sales budget prepared by the above reviewed before acceptance, and if so by whom?
- a. Not reviewed ()
 - b. Reviewed by the sales director ()
 - c. Reviewed by the sales director jointly with the controller/chief accountant ()
 - d. Reviewed by the top management ()
 - e. Reviewed by any other (Please specify) _____ ()
5. Which of the following considerations are taken into account when developing the sales budget?
- a. Projections of past sales ()
 - b. Competition ()
 - c. Econometric data ()
 - d. Specific estimates of the likely demand from existing and potential customers ()
 - e. Any other (Please specify) _____ ()

II. PRODUCTION BUDGET

1. Do any of the following considerations explicitly influence the production budget?
- a. Budgeted sales ()
 - b. Inventory levels ()
 - c. Availability of raw materials ()
 - d. Availability of finance ()
2. Which of the following, if any, are explicitly identified in the budget document?
- a. Quantity of production ()
 - b. Delivery schedules ()
 - c. Quality of products ()
 - i. Costs at which goods are to be produced ()
3. Which of the following categories of costs are explicitly identified in the budget when specifying the costs of production?
- a. Variable costs (i.e., costs which are proportionate to the level of production) ()
 - b. Departmental costs (i.e., costs which do not vary with the level of production, but which are clearly related to a particular department or product line) ()
 - c. Non-routine costs (i.e., costs which occur at specific points in time rather than continuously, such as special maintenance and spares) ()

- d. Fixed overhead (i.e., costs which are fixed and which are not directly reletable to a particular product line or department, but are applicable to several) ()
4. Is the "contribution" or "margin" identified for individual products or product lines? ()
- a. Not identified ()
 - b. Identified for product lines ()
 - c. Identified for individual products ()
5. are "purchase price variances" (difference between estimated purchase price and actual purchase price) calculated and allocated to the purchase department? ()
- a. Yes ()
 - b. No. ()
 - c. Calculated but not allocated to the purchase department ()
6. Are "standards" for the following items identified in the budget document or elsewhere? ()
- a. Materials consumption ()
 - b. Planned yield/waste ()
 - c. Any other non-financial standards(Please specify)_____ ()
7. Who develops the production budget? ()
- a. The production manager ()
 - b. The production manager jointly with department heads reporting to him ()
 - c. The production manager jointly with sales executives ()
 - d. The production manager jointly with sales and purchase executives ()
8. Who reviews the production budget? ()
- a. Production director ()
 - b. Production director and controller/chief accountant ()
 - c. Controller/chief accountant ()
 - d. Top management ()
 - e. Any other (Please specify)_____ ()
9. If the cumulative production schedules indicate that the actual production will not be the same as the budgeted production, is the budget ()
- a. Altered (i.e., revised) ()
 - b. Retained in its original form ()

10. Is the production budget for the forthcoming budget year broken up into
- a. Half-yearly periods? ()
 - b. Quarterly periods? ()
 - c. Monthly periods? ()
 - d. Not broken up into periods of less than a year ()

III. OVERHEAD BUDGET

1. Is there an overhead budget for company-wide common services (such as Accounting, Legal and Personnel) which are not related to production/sales levels?
- a. Yes ()
 - b. No ()

Note: If your answer is "No" please skip the remaining questions in this part and move on to the next part (i.e., Part IV).

2. Are these overheads separated into any of the following categories?
- a. Discretionary costs (costs like advertisement that are periodically usually annually, reviewed by top management, and whose magnitude is a judgmental decision on the part of top management) ()
 - b. Committed costs (costs like depreciation which are "sunk" and are not amenable to change by management) ()
 - c. Neither of the above ()
3. Who develops this "overhead budget"?
- a. Controller/chief accountant ()
 - b. Heads of sales, production, and service departments jointly ()
 - c. Any other (Please specify) _____ ()
4. Is this overhead budget reviewed, and if so by whom?
- a. Not reviewed ()
 - b. Reviewed by the controller/chief accountant ()
 - c. Reviewed by the top management ()
 - d. Any other (Please specify) _____ ()

IV. COMPANY-WIDE BUDGET

1. Is profit (before or after tax) budgeted for the company as a whole?
- a. Yes ()
 - b. No ()
2. Into what periods is the annual cash flow statement broken up?
- a. Not applicable. No annual cash flow statement is developed. ()
 - b. The annual cash flow statement is not broken into shorter time periods ()
 - c. The annual cash-flow statement is broken up into half yearly periods ()

- d. Into quarterly periods ()
 - e. Into monthly periods ()
 - f. Any other (Please specify) _____ ()
3. Which of the following considerations are explicitly taken into account when budgeting working capital requirements?
- a. Not applicable, working capital is not explicitly budgeted ()
 - b. Credit terms given and level of accounts receivable ()
 - c. Inventory levels ()
 - d. Marketable securities, debentures, government securities, etc. ()
 - e. Credit terms received and level of accounts payable ()
 - f. Bank facilities available, including secured loans ()
 - g. Dividend requirements ()
 - h. None of the above ()
4. Who reviews the company-wide budget before it is finalized?
- a. Not reviewed ()
 - b. Board of directors ()
 - c. Managing director ()
 - d. Any other (Please specify) _____ ()
5. Following the review of the company-wide budget, which of the following actions take place?
- a. Not applicable. No review is conducted ()
 - b. Revisions are suggested by the reviewers, but need not be accepted ()
 - c. The reviewers decide unilaterally the revisions needed ()

V. BUDGETING (GENERAL)

1. To what extent do managers who have to implement the budget participate in the development of the budget?
- a. The budget is finalized without necessarily consulting the managers who are to implement it ()
 - b. The budget is finalized only after obtaining the opinions of the managers who will implement it ()
 - c. No budget is finalized without the willing acceptance of the managers who are to implement it ()
2. Is there a formal understanding that the annual budget will be reviewed with the intent to revise it during the budget year, and if so at what frequency are such reviews expected to be conducted?
- a. No such revisions are planned for beforehand ()
 - b. A budget review with the intent to revise it, if necessary, is scheduled six months after the annual budget comes into effect ()
 - c. Reviews with the intent to revise the budget are scheduled every quarter ()

3. Are unscheduled budget revisions carried out for any of the following reasons?
- a. No. The annual budget is not revised during the budget year under any circumstances ()
 - b. The budget is revised if the actual performance varies over a certain percentage from budgeted performance ()
 - c. The budget is not revised if actual performance varies from budgeted performance unless it is due to drastic changes in the economic, social, and political environment or other major business developments clearly beyond management control ()
4. How many months ahead of the budget year do the following events occur?

Event	No. of months before the budget year that the event takes place
a. Initiation of the budget development	
b. Review prior to finalization of the "company-wide" budget	
c. Finalization of the "company-wide" budget	

5. Are budgets stated separately for any of the following?
- a. Different geographic regions ()
 - b. Different factories within the company ()
 - c. Departments within the factories ()
 - d. "Service" departments, such as accounting, legal, and finance ()
 - e. None of the above, only a company-wide budget ()

D. THE CONTROL SYSTEM AND PROCESS

1. Please fill in the number of reports each of the specified levels of management get at various frequencies.

Level of management	Frequency					Total
	Daily	Weekly	Monthly	Quarterly	Half-yearly	
Top management (board/ managing director)						
Executive management (managing director/ functional directors)						
Operational management (departmental heads)						

2. Against each of the items in rows 1 to 7, please put a tick mark in the sub-columns (a and b, which describe types of reports) to indicate the type of report, if any, that goes to the levels of management described in columns I to III.

Item	Top Management I	Expected vs. actual (i.e., variance)	Executive Management II	Expected vs. actual	Operational Management III	Expected vs. actual
	absolute (i.e., actuals only)		absolute		absolute	
	a	b	a	b	a	b
1. Sales product line-wise						
2. Variable costs of production						
3. Product line contribution						
4. Related overhead(activity-wise or product-wise)						
5. Service department(overheads (company-wide))						
6. Profit(before or after tax)						
7. Quality, yield, efficiency, capacity utilization, and similar non-financial items						

3. Please state the title of the executive administering the management control systems.

4. To which of the following does he report?
 - a. Chief executive (president or managing director) ()
 - b. Finance director ()
 - c. Chief accountant ()
 - d. Any other (Please specify) _____ ()
5. Are formal reviews of the company-wide actual versus expected performance conducted during the budget year?
 - a. No. No formal reviews are conducted ()
 - b. A review is conducted six months after the budget year starts ()
 - c. Reviews are conducted every quarter ()
 - d. Reviews are conducted monthly ()

6. Please indicate within how many days, after the end of each period (within the budget year) for which reports are generated, are the following reports usually ready?

	Time taken to prepare reports						
	Within 5 days after the completion of the period	Within 10 days after the completion of the period	Within 15 days after the completion of the period	Within 1 month after the completion of the period	Within 1 1/2 months after the completion of the period	Within 2 months after the completion of the period	Usually after more than two months
Reports							
Sales							
Production							
Overhead							
Profits							
Non-financial indicators, including environmental information							

7. How are these reports prepared?

- a. Manually ()
- b. With punched cards ()
- c. With electronic data processing equipment ()
- d. Any other (Please specify) _____ ()

8. Please indicate which of the following actions are taken, if necessary, after a review of performance for a period.

- a. Not applicable. No review takes place ()
- b. No action is usually taken or recommended ()
- c. Pricing policies or specific product prices are modified ()
- d. New sales promotion activities are undertaken ()
- e. Redeployment of resources, such as men and money ()
- f. Any other (Please specify) _____ ()

9. Are executives evaluated and suitably rewarded, or are they pulled up, on the basis of the reports comparing actual performance to budgeted performance?

- a. Not applicable. No such reports are developed ()
- b. No ()
- c. Yes ()

10. Please indicate the number of the two categories of personnel specified, who are engaged primarily in administering the management control system.

	Number
Professional staff	
Clerical staff	
Total	

11. How much of the chief executive's time is spent on the activities described below?
- a. Percentage of time spent by the chief executive on setting up the budget(e.g., if he spends 30 days, the figure to be filled in would be 10%) _____%
 - b. Percentage of time spent by the chief executive in performance evaluation based on the budget _____%
12. Does your cost accounting system employ "standard costs"?
- a. Yes ()
 - b. No ()
13. On what basis were these standard costs developed?
- a. Not applicable. Standard costs have not been developed ()
 - b. Industrial engineering based analysis ()
 - c. Past performance ()
 - d. Any other (Please specify) _____ ()
14. Is the concept of "responsibility centres" employed in your company? (You may tick mark both (a) and (b) if both hold true.)
- a. Cost centres(i.e., a distinct group of operations within a department or a department in the charge of a specified manager who is responsible for holding costs within budgeted limits) are employed()
 - b. Profit centres(i.e., a division or subsidiary unit in the charge of a specified manager who is held responsible for meeting profit objectives) are employed ()
 - c. The responsibility centre concept is not employed ()

15. How are intra-company transfers of products between responsibility centres accounted for?
- a. Not applicable ()
 - b. The transfer price is based on the market value of the product ()
 - c. The transfer price is based on a standard cost plus a specified mark-up ()
 - d. The transfer price is negotiated by the managers of the concerned responsibility centres ()
 - e. Any other (Please specify) _____ ()
16. Please indicate the three most important non-financial indicators of performance reviewed by your chief executive.
- a. Not applicable. Only financial indicators of performance, such as profits and sales are reviewed ()
 - b. The three most important non-financial indicators of performance (such as customers' complaints and number of unplanned production stoppages) are:
 - I.
 - II.
 - III.

E. PROBLEMS EXPERIENCED.

Please indicate the degree of difficulty experienced in collecting data relating to the items specified.

a. Sales volume

1	2	3	4	5
Difficult to obtain. Cause of considerable problems in administering the control system		Same degree of difficulty as experienced in most other companies I know		No problem experienced in collecting these data

b. Sales price

5	4	3	2	1
No problem experienced in collecting the data		Same degree of difficulty as experienced in most other companies I know.		Difficult to obtain. Cause of considerable problems in administering the control system

c. Production volume

1	2	3	4	5
Difficult to obtain. Cause of considerable problems in administering the control system.		Same degree of difficulty as experienced in most other companies I know.		No problem experienced in collecting these data

c. Production costs

5	4	3	2	1
No problem experienced in collecting the data		Same degree of difficulty as experienced in most other companies I know.		Difficult to obtain. Cause of considerable problems in administering the control system

2. Does the financial accounting system impede the control system for any of the following reasons? Please indicate the degree of the problem on the adjacent scale.

a. The financial accounting practice is based on company law practices not suited to the requirements of the control system (e.g., no bookings are made till bills are received)

1	2	3	4	5
Serious problem		as much of a problem as in most other companies		No problem

b. The financial accounting practice demands a degree of accuracy which is not necessary for control and consequently causes unnecessary delay in developing control reports.

5	4	3	2	1
No problem		as much of a problem as in most other companies		Serious problem

3. Please indicate the degree to which each of the following factors impede the effective implementation of the management control system.

a. Delays in data submission

1	2	3	4	5
Serious problem		as much of a problem as in other companies		No problem

b. Lack of reliability of data because executives whose performance is to be evaluated on the data are also responsible for developing the data.

5	4	3	2	1
No problem		As much of a problem as in other companies		Serious problem

c. Data is provided by several different sources which causes co-ordination and consistency problems.

1	2	3	4	5
Serious problem		As much of a problem as in other companies		No problem

d. The time required to obtain data of adequate accuracy is excessive

5	4	3	2	1
No problem		As much of a problem as in other companies		Serious problem

e. Delay in availability caused due to the use of data of excessive accuracy

1	2	3	4	5
Serious problem		As much of a problem as in other companies		No problem

f. The time required to compile and process the data into the form required for the reports is excessive

5	4	3	2	1
No problem		As much of a problem as in other companies		Serious problem

g. Changes from the assumptions made at the budget development time relating to sales volume, prices, raw material consumption, process yield, overhead costs, etc.

1	2	3	4	5
Serious problem		As much of a problem as in other companies		No problem

b. The periods (within the budget year) for which variance reports are developed are too short to provide meaningful data

5	4	3	2	1
---	---	---	---	---

i. The authorities and responsibilities of executives are not defined with adequate clarity and precision

1	2	3	4	5
Serious problem		As much of a problem as in other companies		Serious problem

j. The responsibility of variances is sometimes shared by more than one executive

1	1	1	1	1
5	4	3	2	1
No problem		as much of a problem as in other companies		Serious problem

k. The standards set in the budget are not accepted by operational management

1	1	1	1	1
1	2	3	4	5
Serious problem		As much of a problem as in other companies		No problem

l. Differences of opinion exist regarding the controllability (at the concerned level of management) of the variances

1	1	1	1	1
5	4	3	2	1
No problem		As much of a problem as in other companies		Serious problem

m. Differences exist between the company's objectives of individual executives

1	1	1	1	1
1	2	3	4	5
Serious problem		As much of a problem as in other companies		No problem

n. The standards in the budget are consciously set at a higher level than are reasonably attainable

1	1	1	1	1
5	4	3	2	1
No problem		As much of a problem as in other companies		Serious problem

o. Executives resent the control system and view it as a curb on their innovative ideas, particularly when these ideas take a long time for fruition

1	1	1	1	1
1	2	3	4	5
Serious problem		As much of a problem as in other companies		No problem

p. The status of the administrator of the control system is inadequate

1	1	1	1	1
5	4	3	2	1
No problem		as much of a problem as in other companies.		Serious problem

q. Top management does not provide adequate resources to effectively implement the control system

1	2	3	4	5
Serious problem		as much of a problem as in other companies		No problem

r. Top management does not pay adequate attention to the reports generated by the control system, nor does it use these reports as a basis for initiating remedial action

5	4	3	2	1
No problem		as much of a problem as in other companies		Serious problem

4. Please indicate the frequency with which variances, which are the responsibility of both the functional departments specified below, occur.

a. The Production and Purchase Departments (e.g., different quality substitutes for the raw material originally specified)

1	2	3	4	5
Very frequently		as often as in most other companies		Rarely or not at all

b. The Production and Personnel Departments (e.g., properly trained operators are not available)

5	4	3	2	1
Rarely or not at all		as often as in most other companies		Very frequently

c. The Production and Maintenance Departments (e.g., loss in production due to preventive or other maintenance)

1	2	3	4	5
Very frequently		as often as in most other companies		Rarely or not at all

d. The Production and Sales Departments (e.g., sales indents not being of the product-mix specified in the budget)

5	4	3	2	1
Rarely or not at all		as often as in most other companies		Very frequently

e. The Sales and Personnel Departments

1	2	3	4	5
Very frequently		as often as in most other companies		Rarely or not at all

f. The Sales and the Finance Departments(e.g., promotional activities are not provided)

5	4	3	2	1
Rarely or not at all		as often as in most other companies		Very frequently

F. EFFECTIVENESS

1. On the scales given below please indicate your understanding of top management's assessment of the effectiveness of the control system with regard to the items mentioned alongside the scales.

a. Production

1	2	3	4	5
Very effective		as effective as in most other companies		Not at all effective

b. Sales

5	4	3	2	1
Not at all effective		as effective as in most other companies		Very effective

c. Overhead

1	2	3	4	5
Very effective		as effective as in most other companies		Not at all effective

d. Costs

5	4	3	2	1
Not at all effective		as effective as in most other companies		Very effective

e. Profit

1	2	3	4	5
Very effective		As effective as in most other companies		Not at all effective

f. Overall corporate performance

5	4	3	2	1
Not at all effective		As effective as in most other compa- nies		Very effec- tive

ANNEXURE IV

CORRELATION BETWEEN MEASURES OF EFFECTIVENESS,
AND DESIGN FEATURES AND IMPLEMENTATION PROBLEMS

Variables Obtained from Published Financial Statements.

Variable No.	Description	No. of companies	% of companies
183	<u>Sales</u>		
	Less than or equal to 50 million	14	15.91
	More than 50 upto 100 million	14	15.91
	More than 100 upto 250 million	18	20.45
	More than 250 upto 500 million	15	18.18
	More than 500 million	12	13.64
	Private Limited Companies	14	15.91
184	<u>Gross Assets</u>		
	Less than or equal to 50 million	26	29.55
	More than 50 upto 100 million	13	14.77
	More than 100 upto 250 million	15	17.04
	More than 250 upto 500 million	9	10.23
	More than 500 upto 1000 million	5	5.68
	More than 1000 million	6	6.82
	Private Limited Companies	14	15.91
185	<u>Average Gross Assets: Sales Ratio</u>		
	Less than or equal to 0.3	18	20.45
	More than 0.3 upto 0.6	15	17.05
	More than 0.6 upto 1.0	20	22.73
	More than 1 upto 2	13	14.77
	More than 2	8	9.09
	Private Limited Companies	14	15.91
186	<u>Funds Employed (Capital + retained earnings + long term loans)</u>		
	Less than or equal to 50 million	26	29.55
	More than 50 upto 100 million	13	14.77
	More than 100 upto 250 million	16	18.18
	More than 250 upto 500 million	9	10.23
	More than 500 upto 1000 million	5	5.68
	More than 1000 million	5	5.68
	Private Limited Companies	14	15.91

Variable No.	Description	No. of companies	% of companies
187	<u>Margin (Sales - Raw Material-supplies - power and fuel - repairs)</u>		
	Less than and equal to 100 million	5	51.14
	More than 100 upto 250 million	18	20.45
	More than 250 upto 500 million	6	6.82
	More than 500 upto 1000 million	2	2.27
	More than 1000 upto 1500 million	2	2.27
	More than 1500 million	1	1.14
	Private Limited Companies	14	15.91
188	<u>Compounded growth rate of profits after tax over the last three years.</u>		
	Less than and equal to -5%	31	35.23
	More than -5% upto 0%	6	6.82
	More than 0% upto 5%	5	5.68
	More than 5% upto 10%	4	4.54
	More than 10% upto 25%	12	13.64
	More than 25%	16	18.18
	Private Limited companies	14	15.91
189	<u>Compounded growth rate of sales over the last three years.</u>		
	Less than and equal to -5%	1	1.14
	More than -5% upto 0%	2	2.27
	More than 0% upto 5%	13	14.77
	More than 5% upto 10%	18	20.45
	More than 10% upto 25%	29	32.95
	More than 25%	11	12.50
	Private Limited Companies	14	15.91

Variable No.	Description	No. of Companies	% of companies
190	<u>Margin/Sales</u>		
	Less than or equal to .25	8	9.09
	More than .25 upto .35	17	16.32
	More than .35 upto .45	19	21.50
	More than .45 upto .55	11	12.50
	More than .55 upto .65	8	9.09
	More than .65	11	12.50
	Private Limited Companies	14	15.91
200	<u>Management Style</u>		
	Subsidiary of a foreign company	17	12.50
	Companies which were previously being managed by foreign managing agency	11	12.50
	Companies which were previously being managed by Indian managing agency houses	17	19.32
	Large Indian companies not belonging to any managing agency group	6	6.82
	Indian companies with substantial financial participation by the foreign collaborator	12	13.64
	Companies belonging to family business	8	9.09
	Public Enterprise	17	19.32

