A STUDY OF CORPORATE ACQUISITION PROCEDURES AND THEIR RELATIONSHIP TO FINANCIAL PERFORMANCE

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ABSTRACT

This study investigates the characteristics of the corporate planning processes adopted within companies and , in particular, the use made of such processes when considering an acquisition. Fifteen companies and twenty acquisitions were studied in depth and in each case structured interviews were conducted with those directors who had been involved in the acquisition decision. The interviews covered five major areas, viz;

1. the planning process and the acquisition trigger.
2. the company internal audit.
3. the acquisition criteria.
4. the bid.
5. post-acquisition action and evaluation.

In analysing the data executives answers were compared and a measure of their level of agreement upon each question was obtained. Additionally, each company was classified financially both in terms of its absolute size and profitability relative to competitors and its stability of growth in size and profitability.

Companies with the more formal systems tended to identify the need for acquisition such that they became problem-avoiders rather than problem-solvers and in these cases the extent of formal analysis was maintained throughout the pre-acquisition procedure. However, there was no evidence that this planning was of immediate benefit since there was no identifiable relationship between formal systems and either the nature of the acquisition or the amount of change required in the victim firm,

whether planned or unplanned.

Taken overall, executives maintained consistent harmony or disharmony in their responses, those in companies which adopted formal procedures showing a higher level of consensus than those in companies which adopted less formal procedures. When comparing financial performance size predominated. The larger companies were those in which the more formal procedures were used and also those in which the levels of consensus were highest. Relative profitability was not found to be a significant factor in the acquisition process.

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To DAVID for his love.

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With many thanks to Harold Rose for his invaluable help and encouragement during the past three years.

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CHAPTER ONE

INTRODUCTION

INTRODUCTION

1.1

During 1967 and 1968 acquisition activity in the U.K. increased substantially, whether measured in terms of number of companies involved or value of assets exchanged. This factor, together with the much publicised work undertaken by the Monopolies Commission, focussed the attention of academics[1,2] and businessmen[3,4,5] upon the problems peculiar to this particular field of activity. The research which has been done however, has tended to take a specific part of the procedure such as the evaluation of the success of acquisitions, or studies of the types of companies involved. In contrast, a number of writers have made suggestions about the procedure which should be adopted throughout the process, from the decision to consider acquisition, to the final evaluation of success. However, most of this tends to be based upon individual experience and impressions rather than controlled research.

1.2

As there appeared to be no real information on the 'state of the art' within companies in Britain despite the extremely high cost of such a venture, and as the researcher was of the opinion that decisions made tended to be emotional rather than rational [6], it was decided to investigate the complete procedures adopted within a sample of companies. The research described later in this chapter formed the guidlines for the design of a questionnaire which was to be put to a number of executives.

Research Outline :

2.1

Gerald Newbould[1] recognised the fact that a study of acquisitions which did not involve investigations within the companies concerned would be of limited value, particularly when attempting to study the reasons behind decisions made. He therefore interviewed executives from 38 "bidding firms", the questions covering four major areas, viz :

(a) initial reason for considering acquisition

(b) the negotiations

(c) post-acquisition activity and performance

(d) post-acquisition reaction to merger activity.

The researcher felt that it would be very difficult to find one person within a company who would be able to answer all the questions with complete authority. For example, the Managing Director may have been responsible for the initial idea, the Financial Director for negotiations and the Production Director for post-acquisition rationalisation. Accordingly, it was decided that if a study of the complete process was to be undertaken, it would be necessary to conduct multiple interviews within the same of companies chosen.

2.2

In terms of the actual questionnaire, the researcher was of the opinion that in addition to the areas covered by Newbould, it would be of value to study the procedure adopted within companies after the initial decision - that is, in cases where a direct approach was not made by the 'victim' firm, the internal audit and environmental scanning which led to a short list of companies, and , also, the criteria against which this short list was measured prior to a final decision. A third topic not covered by Newbould was the question of success or failure of the acquisition discussed and it was decided that the investigation would not be complete without such a study.

Thus, this research investigates the following areas :

(a) initial reason for considering acquisition
(b) internal audit and environmental scanning
(c) acquisition criteria
(d) the bid
(e) post-acquisition action
(f) an evaluation of the relative success of the venture.

Initial Reason for Considering Acquisition

2.3

The researcher felt it reasonable to assume that if a company was considering acquisition, the underlying motive would be a desire for long term survival. Hover [7] suggests that in the United States, this is achieved by diversification. Buckley [8], on the other hand, found the sole objective was "to increase the owners investment in the company". This same factor was described by Burck [9] and Boulden [10] as a need to maintain or increase the stock market value of the company. The researcher felt that these statements were overtly simplistic and that there would be many factors, which would build up over time, finally resulting in the decision to acquire. For example, in his financial study of the aggregate merger activity in the United States, United Kingdom, Australia and France, McGowan [11] concluded that the degree of acquisition activity could not be easily accounted for by financial considerations alone, but was consistent with an adaptive explanation, that is, an emphasis on the changing conditions in real markets.

2.4

Hal Mason [12], in his study of 6 firms involving 79 acquisitions, discovered 13 factors, four of which were classified as "highly motivating". However, the sample chosen was not only small, but also limited to American companies in which there was an active Corporate Planning Group.

2.5

Newbould [1] lists 18 factors, but these are a mixture of reasons for considering acquisition at all and reasons for deciding to buy a particular company, and the researcher felt that this was a major limitation of the work. Also, although Newbould recognised the need to identify more than one factor, the interviewee was allowed the allocation of only 10 points to represent relative importance. Thus, the maximum number of factors which the interviewee could choose, if placed in descending order of importance, would be four (4 + 3 + 2 + 1 = 10). In order to allow the interviewee a wider range of choice, it was decided to allow unlimited ranking of factors grouped under the major headings of Financial, Marketing, Production and Corporate. (see Methodology Section.)

2.6

The researcher felt that, as the findings of Levinson [6] and Rhys [13] suggest, many of the factors put forward would be as a result of an individual, subjective evaluation of a situation and thus would not necessarily be entirely logical. Three approaches would be used to test this :

(a) the level of agreement amongst executives

(b) the extent of agreement by individual executives with the perceived evaluation

(c) the consistency of the answers in this section with later decisions.

2.7

Ansoff [14], Ward [15], and Brion [16] all state that the decision to acquire should be the result of a formal planning procedure, which scans the environment and matches perceived opportunities to corporate skills. However, recent research conducted by Taylor and Irving [17], Hawkin and Kempner [18] and Norburn [19] showed that the planning systems in many companies were still in an embryonic state and therefore it was decided to attempt to relate the extent of formal planning to the type of acquisition trigger.

Internal Audit

3.1

In their analysis of corporate strategy, Learned, Christensen, Andrews and Guth [20] suggest that an internal company audit should comprise three major questions -

1 What business should we be in, or what is our concept of the business ?

2 What are our prime objectives and are these correct ?

3 What are our major strengths and weaknesses ?

A measure of a good strategy would be the extent to which the answers to these questions were internally consistent. Ansoff [14] proposes that an acquisition short-list should comprise companies :

1 whose activities fall within the definition of "the business"

2 which enable the bidder to achieve its objectives by

3 achieving synergy - that is matching strengths and weaknesses.

3.2

The companies which Hal Mason [12] studied all followed this procedure, but conversely Kitching [21], in his study of "why do mergers miscarry", concluded that "few top managers regarded synergy as being inherent in a situation": most felt that it was a product or result of superior management. Kitching interviewed an executive in 22 different companies and thus, as in the case of Newbould [1] the results could be accused of representing the individual rather than the corporate viewpoint. Although both Kitching and Hal Mason [12] studied American companies, the results do suggest a relationship between degree of formal planning and extent of pre-acquisition analysis which could equally apply in Britain.

Decision Criteria

4.1

Hal Mason [12] found that problems did not arise in seeking companies for sale, but in "identifying the good ones that may be hidden among the poor ones". A major test of consistency on the part of the company would be to relate acquisition signal and internal audit to the factors which were considered prior to a final decision. Levinson [6] found that personal reasons such as the need to demonstrate managerial competence or the wish to become the Chief Executive of a larger organisation, or the fear of being destroyed were so strong that little logical analysis took place.

4.2

In order to test both the degree of consistency and the degree of screening, it was felt appropriate to ask executives to identify areas of analysis. Additionally the level of agreement amongst executives would provide an indication of the extent to which these activities took place, and the part which the results played in any decisions taken.

The Bid

5.1

Having decided to attempt to acquire a particular company, it is necessary for the bidder to decide upon a method of approach and upon the quantity and method of payment. The method of approach will be constrained to some extent by the ownership of the 'victim' firm as, for example, it is not possible to buy up shares in a private company on the open market. No evidence exists which explains the reasons for the various strategies adopted and thus this part of the research would investigate three major areas :

(a) the method of approach adopted and the reasons for the strategy chosen. It is suggested that the extent to which the bidder required the co-operation of the Chief Executive of the acquired company post-acquisition would substantially influence decisions in this area.

(b) the method of payment and the reasons for choosing it. This could reflect the extent to which the victim firm was able to control negotiations.

(c) the cost of the acquisition. In their study of the 1967 take-over boom, Rose and Newbould [22] noted that all but one of the acquisitions studied were priced above pre-bid price and at a premium of one third over pre-acquisition price. Whilst it is to be expected that it may be necessary to pay a premium in many cases, the extent to which this happened suggested to the researcher that companies found it difficult to reverse the process when the negotiation stage had been reached, to such an extent that bidding firms often found themselves paying far more than they had originally intended. Stacey [3] remarks that a glib answer to the question "how much is a business worth", could be "the amount that the buyer is prepared to give for it." This section of the research questions the extent to which a premium was paid in the acquisitions discussed and the number of times the maximum price, decided prior to commencement of negotiations, was exceeded.

Post-acquisition action :

6.1

Many writers have outlined the steps which should be taken after acquisition and the areas in which problems may arise (see for example Kleger [23], Blumberg and Wiener [24]), but there exists a limited amount of evidence as to the extent to which this takes place. Newbould [1] asked his sample of executives to describe post-acquisition action and the major problems which arose, concluding that the evidence collected produced "nothing to suggest that synergy was an automatic concomitant of merger". The researcher felt that his results were of limited value as he did not cover all action areas, such factors as change in organisation structure, or product rationalisation being omitted from the questionnaire.

6.2

As a result of interviewing 25 executives in 22 companies, covering 181 acquisitions in the United States, Kitching [21] was able to specify the extent to which synergy was achieved in the major areas of Finance, Marketing, Technology and Production. However, the researcher felt that the extent to which change takes place post-acquisition must be a function of pre-acquisition decisions, since the company may only wish to seek for synergy in a limited number of areas. Thus the last section of the questionnaire would cover the action taken in all areas of the business, the extent to which this had been intended pre-acquisition, and the extent to which the interviewee was satisfied with the results.

Post-acquisition evaluation of success :

7.1

Any research into acquisition procedures would be incomplete if a study of the success of the venture was not made, but what criterion should be used ? Most of the studies conducted in this area use a financial definition such as increased profitability (Dewing[25]), increase in share price (Tzoannos and Samuels[26], Hogarty[27],) post-acquisition profitability compared with pre-acquisition forecast (Westwick[28], Hollender[29]). However, the researcher felt that this was a dangerous path to follow as it assumed that all variations in performance could be related to acquisition activity, thus taking no account of changes in both internal skills, or in the trading environment. Reid[30], Ansoff and Weston[31], and Bossons, Kalman and Reid[32], attempted to deal with this by comparing the performance of their sample of "merging companies" with the performance of "non-merging" companies in the industry.

7.2

Whilst the researcher felt that it was important to study the financial performance of the sample companies, it was decided to reject a financial definition of success, but merely to study the 'characteristics' of the companies and their performance pre and post-acquisition, relative to the mean performance of their industry (see section for further discussion of this point). Thus the research would identify high or low performers rather than acquisition success or failure.

7.3

Bjorksten[33] also recognised the problems inherent in simply using financial measures and specified three criteria for failure, viz.

(1) the acquired firm did not make a profit within 3 years

(2) products or processes had to be radically changed in terms of materials or engineering

(3) the acquired firm was later sold or liquidated.

Unfortunately, such a definition can only be applied to companies which are left intact after the acquisition has taken place and, in terms of (2), runs the risk of misinterpreting management's original reason for the acquisition.

7.4

A number of writers (Ward[15], Stacey[3], Carré and Bouvard[34], Heath[35], Davis[36]) suggested reasons for acquisition failure, but unfortunately all base their conclusions upon experience rather than controlled research and thus were only of value in indicating possible problem areas.

7.5

It appeared to the researcher that the only people sufficiently qualified to make any judgement in this area were those executives within the bidding firm who were intimately involved in the decisions made. In their recent study of "the effect of planning on the success of acquisitions in American firms", Ansoff, Arner, Brandenburg, Portner and Radosevich[37] mailed questionnaires to 412 companies, in an attempt to obtain a subjective evaluation of success from management. 93 usable replies were received, but in view of the fact that there was no possibility of real control over the choice of person to complete the questionnaire, the researcher feels that the results must be treated with suspicion (see chapter 2 for discussion of sampling methods.)

7.6

In addition to an evaluation of corporate financial performance, Kitching[21] asked his sample of executives to rate the success or failure of the acquisitions discussed. However, the researcher felt that his approach had two major limitations :

(a) the reliance upon the subjective evaluation of one person - the individual rather than the corporate view

(b) the fact that the interviewee was not asked to define the criteria used.

7.7

Thus it was decided to complete the investigation by asking each executive interviewed for his opinion on the success or failure of the acquisition discussed and his reasons for such conclusions. A comparison of the answers of executives within a company would provide a more accurate statement of the Corporate View (see chapter 3 for an explanation of Consensus Tests.)

SUMMARY

8.1

In investigating the procedures adopted within companies during an acquisition period, this research will examine the following areas.

(a) the extent to which formal analysis took place and the relationship between this and

(i) the degree of formal planning operational within the organisation.

(ii) the types of acquisition trigger identified

(iii) corporate financial size and profiability.

(b) the extent to which management felt that formal analysis was helpful.

(c) the level of consistency between pre-acquisition analysis and post-acquisition action.

(d) the level of agreement amongst executives on decisions made and the relationship between this and

(i) corporate financial performance

(ii) degree of formal planning.

(e) the extent to which the level of post-acquisition re-organisation was a function of the type of acquisition (horizontal, vertical, concentric, diverse.)

(f) the level of agreement amongst executives on the criteria for evaluating success and the relationship between this and the extent of pre-acquisition analysis.

8.2 The object of the thesis is to test certain conventional statements about the nature of corporate planning and its impact within companies when considering an acquisition. These are -

1. The methodology of formal corporate planning systems would embrace the following format:

a) a clear definition of prime objectives

b) the monitoring of environmental factors which may affect the business.

c) an evaluation of corporate strengths and weaknesses.

d) a re-alignment of product/market strategy as a result of the above factors.

e) a well defined financial control system.

2. A formal planning system would identify the need for acquisition.

3. Companies with formal systems would tend to use a formal approach to acquisition evaluation, the approach following a similar format to the planning system, viz:

a) an internal audit covering -

1. an analysis of the 'concept of the business'.

2. an evaluation of corporate objectives
3. an analysis of corporate strengths and weaknesses

b) formal acquisition criteria which sought some form of synergy between the two companies.

4. The extent of pre-acquisition evaluation seen to be necessary would be a function of the perceived nature of the problem.

5. Companies which use a formal approach to acquisition would be more aware of the possible costs.

6. Companies which used a formal approach to planning would be more likely to be aware of possible problems post-acquisition than those which do not.

7. The extent of change in the victim firm found to be necessary post-acquisition would be a function of -

   a) the extent of pre-acquisition planning

   b) the nature of the acquisition.

8. Companies with formal systems would tend to make more successful acquisitions.

9. Companies with more formal systems would tend to be financially more successful than those with less formal systems.

10. Lack of agreement amongst the executives interviewed would occur at all stages of the acquisition process in those companies which do not use formal planning systems.

11. Lack of agreement would tend to occur as to questions of discussion rather than those of fact.

12. Lack of agreement would tend to occur due to lack of control on the part of the chief executive.

13. Lack of agreement would occur first in larger companies.

14. Lack of agreement would occur in less profitable companies.

15. Decisions would tend to be made for emotional rather than rational reasons.

REFERENCES

1 Newbould - Management and Merger Activity : Guthstead 1970

2 Hodes - The Merger Boom, An American View : Journal of Business Finance Vol. 3 1971

3 Stacey - Mergers in Modern Business : Hutchinson 1970

4 Jones - A Cool Look at Merger Mania : The Times Dec 6th 1971

5 Newbould and Jackson - Look before you Leap : Financial Times

6 Levinson - A Psychologist Diagnoses Merger Failures : Harvard Business Review March 1970

7 Hover - Practical Details of Acquisitions : Management Accounting June 1971

8 Buckley - Some Guidelines for Acquisition : Accounting and Business Research, Summer 1971

- A Profile of Industrial Acquisitions in 1971 : Accounting and Business Research, Autumn 1972.

9 Burck - Fortune, February 1969

10 Boulden - Merger Negotiations, a Decision Model : Business Horizons, January 1969

11 McGowan - International Comparisons of Merger Activity : Journal of Law and Economics, April 1971

12 Hal Mason - The Use of Corporate Planning Groups in Corporate Acquisitions : California Management Review, Summer 1968.

13 Rhys - Anatomy of a Merger : Accounting and Business Research Winter 1971.

14 Ansoff - Corporate Strategy : McGraw Hill, 1969

- Business Strategy : Penguin Books 1969

15 Ward - The Dynamics of Planning : Pergamon Press 1970

16 Brion - Corporate Marketing Planning : Wiley 1967

17 Taylor and Irving - Corporate Planning in Practice, a study of Organised Planning in Major UK Companies : M.Sc dissertation Bradford University 1970

18 Hewkin and Kempner - Is Corporate Planning Necessary : BIM Information Summary 138

19 Norburn - An Investigation into the Relationship Between Company Financial Performance and Primary Objective-Setting, Decision-Making and Sources of Information -

Ph. D Thesis, City University 1972

20 Learned, Christensen, Andrews and Guth - Business Policy, Text and Cases : Richard D Irwin, 1969

21 Kitching - Why Do Mergers Miscarry ? : Harvard Business Review November/December 1971

22 Rose and Newbould - The 1967 Take-Over Boom : Moorgate and Wall Street, Autumn 1967

23 Kleger - Merger Peril, the Management Misfit : Business Horizons Volume XIV, No. 6

24 Blumberg and Wiener - Facilitating an Organisational Merger : Journal of Applied Behavioural Science.

25 Dewing - A Statistical Test of the Success of Consolidations : Journal of Economics, November 1921

26 Tzoannos and Samuels - The Financial Characteristics of Companies Involved in Mergers and Take-Overs : Birmingham University Discussion Paper No. 17

27 Hogarty - The Profitability of Corporate Mergers : Journal of Business 1970

28 Westwick - A Study of Forecasts in Bid Situations : Research Committee of the Insitute of Chartered Accountants, June 1970

29 Hollender - Vice President (Mergers and Acquisitions) Shearson, Hammil & Co.

30 Reid - Is Merger the Best Way to Grow ? : Business Horizons February 1969

31 Ansoff and Weston - Merger Objectives and Organisational Structure : Quarterly Review of Economic and Business August 1962

32 Bossons, Kalman and Reid - Economic Concentration, U.S. Government Printing Office , 1967

33 Bjorksten - Merger Lemons : Journal of Corporate Venture I

34 Carré and Bouvard - The Courtship and Honeymoon of Successful Mergers : European Business, April 1970

35 Heath - Valuation Factors and Techniques in Mergers and Acquisitions, Financial Executive April 1972

36 Davis - Compatibility in Corporate Marriages : Harvard Business Review, July/August 1968

37 Ansoff, Arner, Brandenburg, Portner and Radosevich - Does Planning Pay ? Long Range Planning Vol 3 No. 2 December 1970

38 Wrigley - Harvard Business School doctoral dissertation, 1971.

39 Channon - Harvard Business School doctoral dissertation, 1972.

CHAPTER TWO

SURVEY DESIGN

THE POPULATION

1.1

It was necessary to determine whether the study was to be extensive, covering all mergers and acquisitions, or intensive, studying one particular type.

In each case, a major constraint upon the final decision was the possibility of access to the list of names of the companies making up the population . This was necessary in order that a truly random statistical sample could be taken. The possible areas of study are listed below :

(a) An intensive study of one of the following areas :

(1) Acquisitions of independent companies
(2) Mergers
(3) Sales of subsidiaries between company groups

Table 1 which was extracted from the Department of Trade and Industry publication M7, shows the number and percentage of acquiring companies involved under each heading.

	Acquisition of Independent Companies		Mergers		Sales of Subsidiaries	
	Number	%	Number	%	Number	%
1969	593	86.5	2	0.2	91	13.3
1970	484	77.0	6	0.9	139	22.1
1971	498	73.0	0	0.0	189	27.0

TABLE 1 : Number of companies acquiring and merging (source DOTI Business Monitor M7)

The base upon which the figures were compiled, changed during the period stated. Prior to 1969, the data was obtained from published accounts of quoted industrial and commercial companies operating mainly in the U.K. From 1969, they are based on acquisitions within the U.K. by industrial and commercial companies reported in the financial press. Although the resultant data is consequently incomplete the statisticians responsible for table compilation stated that in their opinion, the relative magnitudes were reliable.

(b) An intensive study of acquisitions and mergers in one of the following areas :

(1) Horizontal
(2) Vertical
(3) Multiple Node Commonality
(4) Single Node Commonality
(5) Conglomerate

Gerald Newbould in his study of merger activity has used this classification for all acquisitions reported in the financial press during 1967 and 1968. This is illustrated in Table 2 :

MARKET TYPE	Number	%
Horizontal	337	83.1
Vertical	16	3.9
Multiple Node Commonality	13	3.2
Single Node Commonality	23	5.6
Conglomerate	17	4.2
TOTAL	408	100

TABLE 2 : Actual Mergers by Market Type

(c) An intensive study of acquisitions made by companies in a particular industry group. Table 3, extracted from Business Monitor M7 shows the industry group of the acquiring companies for the years 1969 and 1970. In this the Standard Industrial Classification (sic) main group headings are used.

	1969	1970
Food	19	18
Drink	9	11
Tobacco	6	10
Chemicals & Allied	40	34
Metal Manufacture	24	27
Non-Electrical Engineering	83	67
Electrical Engineering	39	31
Shipbuilding	2	0
Vehicles	17	17
Metal Goods n. e. s.	37	28
Textiles	66	42
Clothing, leather, fur & footwear	34	47
Bricks, pottery, glass, cement	32	22
Timber, furniture	17	22
Paper, printing, publishing	32	34
Construction	56	41
Transport & Communication	19	24
Wholesale Distribution	60	69
Retail Distribution	40	33
Miscellaneous Services	97	100
Agriculture and Mining	2	15
Property	48	27
Industrial Holding Companies	43	43
Other	24	21
	846	793

TABLE 3 : Industrial Analysis of Acquisitions & Mergers (Source : DOT 1 Business Monitor M7)

(d) An extensive study covering all types of acquisition and merger. Table 4 shows the Department of Trade and Industry estimates of the number which took place during the years 1968 - 1971 inclusive.

YEAR	TOTAL
Quoted companies (company accounts)	
1968	946
1969	906
All industrial and commercial companies	
1969	846
1970	793
1971	884

TABLE 4 : Acquisitions and Mergers
Source : DOT 1 Business Monitor M3

1.2

It was decided to define the population to be studied as all acquisitions or mergers which were reported in the financial press during the years 1968 - 1971. Although it was recognised that companies are not required to report their activities to the press, there was no reason to expect that in terms of the research, a biased sample would result.

Intensive studies were rejected for three major reasons :

(a) in the case of all the various sub-groupings previously described, no records had been kept of the names of the companies in each group.

(b) although the researcher would have a particular acquisition in mind when approaching the companies, it was possible that they would be willing to talk about additional acquisitions which did not fall into the category chosen.

(c) the study is concerned with procedures and levels of consensus prior to acquisition, and it was felt by the researcher that these would be independent of the category of acquisition.

1.3

Time Period

A difficulty encountered in the research was in choosing acquisitions which were not so distant that executives concerned had either forgotten details of the decisions made or had left the company, but at the same time, not so near that they had had insufficient time to digest the new addition. Accordingly, taking into account the fact that the interviews themselves would be conducted over a period of 15-18 months, the years 1968 to mid-1971 were chosen.

1.4

Population Company Names :

As detailed in Section 1.2 of this chapter, although data had been collected on the number and type of acquisitions each year, no record was kept of the names of companies who comprised the list. It was therefore decided to sample from the list of 'take-over bids and mergers' published in each Saturday edition of the Financial Times. Because the research was concerned with procedures adopted by the acquiring company, it was from the list of bidders, rather than the list of companies to be acquired, that the sample would be drawn.

In using this source, two points must be noted :

(a) Some companies have been very active in the acquisition business over the past few years, and their names are likely to appear in the population list more than once. Therefore, in sampling at random, the probability of a company being chosen was a function of the number of bids made, and the resultant sample would comprise a mixture of acquisition-active and inactive companies .

(b) The list therefore comprises the number of bids made rather than those completed. However, in terms of the research it was felt unlikely that any resultant bias would occur.

THE SAMPLE

2.1

It was felt that the response rate from the sample chosen could be very low due to the nature of the research and the amount of senior executive time that was requested. Consequently, it was decided to take a large initial sample and then attempt to test the refusals against the acceptances for any possible bias (see Section 3 of this chapter) : the target final sample size was to be 15 companies. The sampling process comprised two stages :

(1) The selection by the researcher of the Financial Times list for the last Saturday of each month.

(2) As the lists were in alphabetical order, two names were chosen by a random process.

2.2

The final sample comprised 84 names, from which 5 were eliminated when a check in "Who Owns Whom" showed that the proposed acquisition had not in fact taken place.

2.3

Letters were written to the Chairman of the remaining 79 companies outlining the nature of the research and asking for their participation. Each company would be sent an individual report summarising the replies of the interviews. These are to be found in the appendix of this research.

THE METHOD OF DATA COLLECTION

3.1

A number of studies in the field of planning have used postal questionnaires as the main source of company information in an attempt to obtain a large sample. However, the researcher felt that for this particular area, this approach was unsatisfactory for the following reasons :

(1) The questions would have to be such that the respondent could code the answers himself. Any other method of response would require the researcher to interpret the answers without being able to refer back to the interviewee for confirmation of coding.

(2) The amount of commitment on the part of the person replying may be very little.

(3) The researcher has no control over the choice of person who eventually completes the return.

(4) The Chief Executive may be unwilling to disclose information about such a delicate topic as acquisition procedure without having personal knowledge of the individual conducting the analysis and the subsequent degree to which the answers would be treated as confidential.

(5) There would be no opportunity for the researcher to form a personal impression of the people participating.

It was for these reasons that it was decided to conduct personal interviews within the companies who agreed to participate.

TESTS FOR BIAS

3.2 Whichever method of approach to the company was used, the researcher would encounter a major problem of possible bias in the final sample. The diagram below illustrates the situation.

Stage 1

The population.

Stage 2

The sample -

chosen at random to

represent the population (79)

Stage 3

The companies interviewed (15)

It could be argued that stage 3 companies form an unrepresentative section of stage 2 companies, and thus any resultant analysis could not be interpreted as being representative of the original population. Two methods were used to test for bias :

a) comparison of relative size (turnover) and profitability (return on capital employed.

b) an examination of the reasons quoted in the refusal letters received.

A. Size and profitability

The stage 2 companies were divided into three groups -

1. The companies interviewed (Table 5)
2. The companies which replied but refused to participate (Table 6)
3. The companies which were approached but didn't reply. (Table 7)

1971 data was used in this test as this was the year when companies were approached and when a large proportion of them were interviewed. Data for the year ending 1972 was very incomplete and would have been of little value in analysis.

	Turnover (£m)	Return on Capital* (%)
Richard Johnson	67.99	10.6
Airfix	8.54	17.2
British Oxygen	234.6	12.5
Mann Egerton	57.63	14.6
Laporte	46.28	8.7
Newton Chambers	21.09	9.8
Ruberoid	12.58	12.2
Foseco Minsep	47.70	20.8
Calor Gas	26.0	14.5
Steetley	62.27	15.0
Marwin	6.05	Loss
Burton	80.05	10.6
Gliksten	58.68	9.3
Quinton Hazell	21.19	20.6
CIBA-Geigy	72.85	9.1
Armitage Shanks	12.32	15.5
Bibby	97.33	10.6

TABLE 5: Companies Interviewed.

$$* \text{ Return on Capital} = \frac{\text{Profit before tax}}{\text{Capital employed}}$$

	Turnover	Return on Capital
Alfred Herbert	37.72	Loss
Seddon Diesel	18.60	13.0
Boots	257.39	22.3
Smith & Nephew	61.06	19.6
Staflex	14.63	11.9
Haden Carrier	67.6	11.3
Courage	136.17	8.9
Concrete	28.63	18.3
Lucas	319.8	12.1
Universal Grinding	22.12	16.2
Whitbread	210.2	10.2
EMI	230.57	7.0
Cadbury Schweppes	296.1	13.6
Glaxo	173.0	19.4
Tarmac	154.61	16.6
Gerrard & National Discount	NA	NA
Doulton	20.96	8.9
Stavely	48.29	6.8
Lloyds	NA	NA
Babcox & Wilcox	110.59	8.4
Dexion	29.95	7.1
BICC	443.0	13.9
RTZ	445.9	5.6
Trust Houses Forte	180.11	10.5
Beecham	181.80	25.2
Burmah Oil	355.95	6.2
GKN	564.84	13.7
Tilling	319.67	17.0
London Brick	36.02	22.9
Imperial Tobacco	1275.9	13.2
Distillers	414.0	17.1
Marshall Andrew	NA	NA
Skefko	Kroner	9.3
Rank	157.03	17.5

Table 6; Companies which replied

	Turnover	Return on Capital
Rockware	33.41	12.8
Hoechst	Data in Dm.	
Lonhro	192.0	12.1
Mather & Platt	49.35	11.8
A.B. Foods	585.2	17.6
Clarkson International Tools	13.02	15.5
Coats-Patons	303.33	13.7
Court Line	26.61	14.6
Tesco	259.38	33.3
Triumph	39.48	18.2
Trafalgar House	130.67	6.3
Hill Samuel	42.13	1.67
House of Fraser	148.18	12.3
Mather Platt	49.35	11.8
S. Pearson	89.70	13.1
Plessey	258.1	10.1
W.P. Buttefield	21.62	9.3
Crown Cork	NA	NA
United Builders	78.68	14.3
Mercantile Credit	179.48	9:4
P. & O.	231.67	2.9
Celloglas*	Acquired	
Johnson & Blay*	Acquired	
Glynwed	85.79	20.4
LRC International	46.98	19.1
BSR	21.78	34.9
Blagden and Noakes	16.01	22.9
Reyrolle-Parsons	85.92	Loss

TABLE 7: Companies which didn't reply.

* These companies were subsequently acquired and the required data was not available.

Results of the analysis of variance test conducted to compare the three groups in tables 5, 6, 7 are shown below:

(1) Size

	Sum of Squares	D.F.	Mean square	$F_{2,68}$
Between Groups	315629	2	157814	18.2
Residual	588134	68	8649	
Total	903763	70		

TABLE 8

Upper 1% point $F_{2,60} = 4.98$

Upper 1% point $5_{2,120} = 4.79$

Therefore there is a significant difference between the size of companies in each group, Table 8 shows the mean turnover per group

Group	Mean turnover (£m)
Interviewed	55.6
Refused	220.4
Non-replies	124.5

TABLE 9

The analysis shows that, of those companies approached, only the smaller ones were prepared to help in the research and thus the results can only be said to represent those companies. However, later financial analysis will indicate that when the sample companies are compared with companies competing in the same markets a wide range of relative sizes is represented. Thus, although in absolute terms, only small companies have been included in the research, in relative terms, this is not the case:

(i) Return on capital

	Sum of squares	D.F.	Mean Square	$F_{2,69}$
Between groups	29.45	2	14.82	2.66
Residual	2723.55	69	39.47	
Total	2753.00	71		

TABLE 10

Upper 5% point $F_{2,60} = 3.15$

Upper 5% point $5_{2,120} = 3.07$

Therefore there is no significant difference between the profitability of companies in each group (see below)

Group	Mean profitability (%)
Interviewed	12.45
Refused	13.02
Non-replies	14.09

TABLE 11

B Refusal letters

The reasons quoted in the replies from companies for refusing to participate were divided into two broad types -

Type A - those which could be said to be a function of pre-acquisition procedure or of post-acquisition evaluation of success.

Type B - those which could not be classified as above.

Table 12 shows the answers received.

REASON FOR REFUSAL	Number of Companies
<u>Type A</u>	
1 The acquisition which you wish to discuss was unsatisfactory, and therefore we feel that our comments would be of little value to you.	0
2 We have not participated in many acquisitions and therefore we do not feel that we could make a useful contribution.	4
3 The answers to the questions which you would ask are of a confidential nature.	2
<u>Type B</u>	
4 Although we do try to help in this type of study, we are not able to comply with all requests.	5
5 We do not participate in this type of study.	1
6 We do not feel that it would be of benefit to us.	2
7 All the executives involved have left the company.	3
8 We are at present involved in a major organisational change and do not feel able to participate.	3
9 Our executives do not have the time available at present.	10
10 No reason.	4
TOTAL	34

Although the responses given in the letters may not always be the real reason for refusal, the analysis does indicate that it would be reasonable to assume that the sample covers companies which had varying measures of success in their acquisitions. Indeed, later analysis of the results strongly supports this view.

The Interviews

3.3 Having determined that interviews were to be used as the vehicle for data collection, it was decided that multiple interviews would be conducted in order that a corporate view rather than a personal view would be obtained. This was particularly important when asking questions about decisions made some time previously, as executives' retention and impressions of relevant factors could vary. Consequently, only that data upon which there was consensus amongst executives would be regarded as being representative of corporate action. (See Methodology chapter for a definition of consensus). This approach also enabled the researcher to examine the level of agreement amongst executives interviewed as to both fact, and the extent of satisfaction to that which they perceived to have taken place.

3.4 Method of approach to company:

A letter was written to the Chief Executive of the companies selected stating:

(a) the objective of the research

(b) the institutions supporting the research

(c) the extent of company commitment, an envisaged 4 hours of senior executive time.

(d) that they would, in turn, receive a report comparing the answers of executives.

The letter concluded by asking for a short appointment in order to give a more detailed explanation of the work. In all cases where an appointment was granted, the company subsequently participated in the research.

3.5 Executives to be interviewed:

At the meeting described in Section 3.4 the researcher was able to discuss the choice of executives to be interviewed. The researcher appreciated that the number of executives able to make a useful contribution to the research would vary, as would the number that the Chief Executive would be willing to allow to participate. However, this would not invalidate the results when comparing procedures across companies, as the consensus test described in the methodology chapter would be used.

3.6 Acquisitions Discussed:

Companies within the sample were selected with a particular acquisition in mind and it was important that this should be the one discussed. If the researcher allowed the Chief Executive to make the choice, it was possible that he would select "the most interesting" or "the most successful" one - this could lead to bias in the results. In the event this did not prove to be a problem, indeed, in most cases, executives agreed to talk about all acquisitions which took place over the time period discussed.

3.7 The method of interview:

The interview followed the format of the questionnaire shown in section 3.8 of this chapter and the researcher took full notes of all responses, the questionnaire being so arranged that sufficient space was made available. Whenever it was necessary for a particular response to be coded, the interviewee was informed of the classification used, although at no time did he see the coding sheets. The latter was particularly important as the researcher did not wish to prompt answers which the interviewee felt that he ought to have given. The time taken for each interview varied between 1 hour and 3 hours, the mean time taken being 1½ hours.

3.8 The Questionnaire:

NOTE:

1. Answers were coded against the following list:

Financial:	Liquidity
	Profitability
	Gearing
	P/E or EPS
	Turnover/growth
Marketing:	Products
	Markets
	Customers
	Market size/growth
	Market Share
	Channels/outlets
	Competitors
Production:	Raw materials
	Labour
	Processes/plant
	Distribution
	Research
Corporate:	Management
	Image
	Legal
	Approach from third party.

2. Answers outside the above list were also included in the results.
3. At no time did the interviewee see any of the lists used in coding.

SECTION 1: TRIGGER

1. Describe the system used by the company for reviewing corporate strategy immediately prior to the acquisition discussed [answers to be coded below].

	Formal		Informal		No
	Regular	Irregular	Regular	Irregular	System
Objectives					
Constraints					
Strengths and weaknesses					
Product/market strategy					
Monitor and control systems					

2. Did this system signal the need to acquire?

3. Explain the initial reason(s) for the company considering acquisition.

4. If more than one reason is given, rank in order of importance.

NOTE:

Question 2: The categories were defined by the interviewee and thus could take any form.

Question 3b: Answers were coded against the following list:

Financial:	Liquidity
	Profitability
	Gearing
	P/E or EPS
	Size
Marketing:	Turnover
	Penetration
	Product development
	Market development
	Diversification
	Price
	Customer service
Production:	Capacity utilisation
	Level production
	Costs
	Industrial relations
	Distribution
Corporate:	Company image
	Community service
	Productivity

SECTION TWO - ELIMINATION

1 Did the signal as described earlier focus attention upon specific categories of companies?

2 If YES, what was the category of company chosen.

3 Prior to the choice of a company from the above category or, if the answer to the above is NO, prior to the choice of a short-list, did you formally:

(a) Consider the kind of company you are?
(i.e. 'the concept of the business')

If YES
(i) what was your conclusion?
(ii) Do you consider that this was incorrect?
(iii) If YES, what should it have been?

If NO
(i) Do you think that this would have been useful?
(ii) If YES, what assessment would you have made?

(b) Evaluate Company Objectives?

If YES
(i) In what areas were they defined? Rank them in order of their importance.
(ii) With hindsight, do you consider that these were the right objectives?
(iii) If NO, what should they have been? Rank the objectives indicated in order of the importance you feel should have been attached to them.

If NO
(i) Do you think that this would have been useful?
(ii) If YES, in what areas were they defined? Rank them in order of their importance.
(iii) With hindsight, in what areas do you feel the objectives should have been classified? Rank them in order of the importance you feel should have been attached to them.

NOTE: The areas in which strengths and weaknesses were identified were noted against the following list:

Financial:	Liquidity
	Profitability
	Gearing
	P/E or EPS
	Size
Marketing:	Products
	Markets
	Customers
	Market Share
	Channels
	Marketing Skills
	Market size
Production:	Raw materials
	Labour
	Processes/plant
	Distribution
	Research
Corporate:	Management
	Image
	Organisation Structure
	Control Systems

(c) Appraise the strength and weaknesses of the company?

If YES (i) What were they? Rank them in order of their importance.

(ii) Do you think that your assessment was correct?

(iii) If NO, how would you change it?

If NO (i) Do you think that this would have been useful?

(ii) If YES, how would you have evaluated them at the time? Rank them in the order of importance you would have attached to them.

(iii) Do you think your assessment would have been correct?

(iv) If NO, how would you change it?

(d) Consciously choose to concentrate your acquisition activities in specific company categories by matching strengths or attempting to eliminate weaknesses as you assessed them? [i.e. Seek synergy]

If NO Do you think this would have been useful?

NOTE: Answers were coded against the following categories:

Financial:	Liquidity
	Profitability
	Gearing
	P/E or EPS
	Size
	Cost
Marketing:	Products
	Markets
	Customers
	Market size/growth
	Market share
	Channels/outlets
	Competitors
Production:	Raw materials
	Labour
	Processes/plant
	Distribution
	Research/technology
Corporate:	Management
	Image
	Legal

SECTION THREE - CONCENTRATION

Did you set up criteria which would enable you to choose within the company category decided upon?

If YES (i) What were they?

(ii) Rank the criteria above in order of their importance at that time.

(iii) Do you think that the criteria were correct at that stage of the company's development?

(iv) If NO, how would you have changed them?

If NO (i) Do you think that this would have been useful?

(ii) If YES, what are the criteria which you feel should have applied at that stage of the company development?

(iii) Rank them in order of their importance.

SECTION FOUR - BID

1 How did you go about the process of acquisition -

(a) Did you slowly buy up shares in the company over a period of time or did you make an open declaration of intention to buy? (i.e. indirect or direct.)

(b) Did you approach the shareholders or the company or both.

(c) What was the reason for the strategy chosen in (b)?

(d) What form did the bid take? shares/cash/debit?

(e) What was the reason for your choice in (d)?

2 For each of the questions in Part 1, do you feel that you made the correct decisions? If your answer is NO, what do you feel that you should have done?

3 Did you pay a premium over pre-bid price?

4 Did you pay a premium over net asset value?

5 Did you pay more than your original maximum price?

SECTION 5: POST-MERGER

1 After the acquisition, did you take any action in the following areas:

Organisation structure

Management

Asset structure

Products

Marketing

Production

Control systems.

Outline the changes which took place.

2 Was the action described above preplanned?

3 With hindsight, would you have adopted a different policy? If YES, describe the change necessary.

4 Was the time taken to complete all planned action -

a) less than anticipated

b) as expected

c) longer than anticipated

5 Do you feel that the acquisition was successful?

Give reasons.

CHAPTER THREE

METHODOLOGY OF DATA ANALYSIS

INTRODUCTION

1.1

A major aspect of the research was an attempt to determine the financial success of the companies interviewed, and survey of contemporary research in this field identified a number of possible methods of approach.

1.2

John Kitching[21] attempted to related post-acquisition results to pre-acquisition forecast. However, this approach does require that results of the purchased company should remain isolated from those of the parent company for some period of time after the merger, and in cases where rationalisation and re-organisation has taken place, this is not always possible. In the case of pre-acquisition forecast, substantial errors can arise due to limited access to the company considered for purchase. A study by Westwick[28] underlines the magnitude of errors made in forecasting in such situations.

1.3

An alternative approach could entail taking forecasts made immediately after acquisition, when the company has a more intimate knowledge of new problems and potential. However, few companies publish lengthy forecasts and indeed, of the firms which Mason[12] studied, not one projected profits beyond one year.

1.4

Ansoff, Arner, Brandenburg, Pertner and Radosevich[37] studied the effect of planning on the success of acquisitions in American firms by first assessing the extent of planning from detailed questionnaires.

This was then related to the company's pre- and post-acquisition performance. Twelve performance measures were used, all being available from current published data. However, in order to establish some measure of causality between the acquisition and subsequent financial performance, it was necessary to choose firms which had an acquisition-free period of sufficient length, both before and after the acquisition studied, to establish representative performance measures : a period of 4 years was chosen.

1.5

A third approach used by Tzoannos & Samuels[26], Newbould[1], the Department of Trade and Industry , and Singh[38] entailed an examination of the size and profitability of companies involved in acquisition. In all cases, the size of companies was measured at only one point in time. The researcher considered that it would be more useful to examine the growth in size of the companies interviewed pre and post the acquisition period, and to compare this with that of their competitors to determine a typicality. In the case of the last two studies, a market comparison was made, but this simply took the form of a grouping of the companies examined into industries. The criterion used was the Standard Industrial Classification (SIC) ; this method groups companies by production process and therefore does not automatically compare companies competing in the same market segments.

Method of Analysis Used

2.1

It was decided to divide the analysis into two parts :

(a) a study of the financial characteristics of the companies interviewed under the headings of Profitability, Liquidity, Capital Structure and Efficiency. An attempt was not to be made to relate these results to a particular acquisition as it was not possible for the researcher to be as specific as Ansoff et alia in the choice of companies to be studied.

(b) a study of the financial performance of companies competing in the same market as each sample member ; the performance of each company to be related to the average market performance. This type of analysis would thus allow the sample companies to be classified as high or low performers relative to their major competitors.

2.2

It was decided to study only the performance of the acquirer for two reasons :

(a) As described in section 1.2 of this chapter, it is sometimes difficult to obtain meaningful post-acquisition data for the acquired company.

(b) The results of the financial analysis were to be related to the procedure adopted by the acquirer ; this information was to be obtained from the interviews conducted.

Ratios Used in Company Analysis

3.1

The analysis covered five major areas :

Basic Data
Profitability
Liquidity
Capital Structure
Performance Ratios

Such an extensive analysis was conducted for two reasons :

(a) Observers could mention measures in any one of these areas as either prime company objectives, or signals for acquisition, and it was important to be able to relate their answers to company performance.

(b) The final analysis would attempt to relate financial characteristics to acquisition procedure.

3.2

A list of ratios used is seen below.

MEASURE	DEFINITION
<u>Basic Data</u>	
Turnover	—
Net worth (NW)	Ordinary shareholders' Capital
Net Assets (NA)	Total Assets - Current Liabilities
Profit before Interest and Tax (PBIT)	—
Profit after Tax (PAT)	—
Number of employees	—
Number of ordinary shares	—
<u>Profitability</u>	
Gross Margin	PBIT/Turnover
Net Margin	PAT/Turnover
Return on Net Assets	PBIT/NA
Return on Net Worth	PAT/NW
Asset Turnover	Turnover/NW
Dividend Cover	PAT/Dividend payment
<u>Liquidity</u>	
Current Ratio	Current Assets/Current Liabilities
Acid Test	(Current Assets - Inventory)/ Current Liabilites
Debtors (days)	(Debtors x 365) / Turnover
<u>Capital Structure</u>	
Gearing	Long-term Debt/(Debt + NW)
<u>Efficiency</u>	
Turnover per Employee	—
Earnings per share	PAT/Number of shares
Net Assets per share	—

Time Period of Analysis

4.1

A five year period covering the years 1967 to 1971 inclusively was chosen for the following reasons :

(a) Five years was a sufficient time period over which to conduct an analysis of trends.

(b) Prior to the 1967 Companies Act, it was not necessary for firms to publish such data as turnover. This particular measure was to be extensively used in the analysis of market performance. (See section 5 of this chapter).

(c) The longer the time period used, the more likely that accounting procedures had changed, thus making results incompatible.

(d) Although some data was available for 1972, not all would be published by the proposed completion of this study.

Market Comparison - Measures Proposed

5.1

The second strand of the study was to be a comparison of the financial characteristics of the companies who participated. However, to compare them directly would be invalid as each experienced differing trading environments.

For example, in 1971, a return on capital of 15.0% would be poor in the Steel Market (median = 19.0%) but good in the Car Retailing Market (median = 12.0%). It was therefore necessary to first rate the performance of the individual company against the performance of companies competing in the same market.

5.2

It was decided to study two aspects for comparison

(a) Size and Growth in Size

(b) Profitability and Growth in Profitability.

In each case, it was decided to score the company studied in terms of its relative distance from the average market value. Thus, some measure of the variation in size and profitability within the market would be required.

5.3

A number of measures could be used under each heading :

Size - Turnover

Net Worth

Net Assets

Number of Employees

Profitability - Gross Margin

Net Margin

Return on Net Worth

Return on Net Assets (or Return on Capital Employed)

Net Assets per Share

Earnings per Share

In each case, the objective of the study was to determine relative performance - a ranking of companies, rather than the absolute magnitude of size or profitability. Turnover was chosen to represent size and Return on Net Assets to represent profitability for one main reason - market data was more readily available for both these measures than any other. However, in his interesting study of company performance, Norburn[10] could find no significant difference between the ranks attached to his sample companies when any of the criteria were used. This was tested further by the researcher. The companies in each market sample were ranked by turnover and by net assets for 1969 results. In all cases, no significant difference between the rankings was observed - see Table 1.

Board of Trade Classification	Number in Sample	Spearman's Rho	Significance Level (5%)
26-4 Chemicals	22	0.80	0.360
33-2 Metal working machine tools	12	0.96	0.506
38-1 Motor vehicles	16	0.88	0.425
39-1 Metal goods	21	0.89	0.521
46-4 Building materials	21	0.93	0.521
49-1 Rubber	23	0.76	0.496
81-2 Wholesale distribution	23	0.88	0.496
82-2 Retail distribution	30	0.81	0.430
88-5 Motor repairs, distributors	27	0.90	0.456

TABLE 1: Significance tests for ranking companies by turnover and net assets.

5.4

Whittington and Singh [11] tested the hypothesis that profitability is related to size ; size being measured at one point in time and profitability over a period of time. Their results were inconclusive.

In order to test the validity of this hypothesis in the case of the markets studied, the sample companies were ranked by turnover and by return on capital for each of the five years. The results, shown in table 2 indicate that no significant relationship exists between the rankings by size and profitability. In other words, there is no evidence to support the hypothesis that larger companies are more or less profitable than smaller ones.

TABLE 2 - SIGNIFICANCE TESTS FOR RANKING COMPANIES BY TURNOVER AND BY RETURN ON CAPITAL

BOT Group	Year	Sample Number	Spearman's Rho	Significance Level (1%)	Result
88/5	1967	20	- 0.22	0.534	Sig. Difference
	1968	26	- 0.32	0.465	"
	1969	27	- 0.01	0.456	"
	1970	25	- 0.12	0.475	"
	1971	21	+ 0.02	0.521	"
26/4	1967	16	- 0.24	0.601	"
	1968	22	- 0.02	0.508	"
	1969	22	- 0.10	0.360	"
	1970	21	- 0.06	0.521	"
	1971	19	- 0.14	0.549	"
39/1	1967	13	- 0.12	0.678	"
	1968	23	- 0.10	0.496	"
	1969	21	- 0.03	0.521	"
	1970	23	- 0.45	0.496	"
	1971	20	- 0.53	0.534	"
49/1	1967	19	+ 0.19	0.549	"
	1968	21	- 0.07	0.521	"
	1969	23	- 0.30	0.496	"
	1970	21	- 0.06	0.521	"
	1971	17	- 0.15	0.582	"

BOT Group	Year	Sample Number	Spearman's Rho	Significance Level (1%)	Result
81/2	1967	13	0.08	0.678	Sig.Difference
	1968	25	0.05	0.475	"
	1969	23	0.34	0.496	"
	1970	20	0.07	0.534	"
	1971	14	0.10	0.645	"
82/2	1967	22	-0.06	0.508	Sig.Difference
	1968	32	0.03	0.420	"
	1969	32	0.15	0.420	"
	1970	28	0.18	0.450	"
	1971	21	0.14	0.521	"
46/4	1967	14	-0.19	0.645	Sig.Difference
	1968	21	-0.06	0.521	"
	1969	21	-0.05	0.521	"
	1970	21	-0.15	0.521	"
	1971	20	0.00	0.534	"
38/1	1967	8	0.38	0.833	Sig. Difference
	1968	15	-0.17	0.623	"
	1969	15	-0.19	0.623	"
	1970	15	0.03	0.623	"
	1971	14	-0.07	0.645	"
33/2	1967	10	-0.08	0.746	Sig.Difference
	1968	11	-0.34	0.719	"
	1969	11	0.11	0.719	"
	1970	11	-0.13	0.719	"
	1971	9	0.15	0.783	"

Market Comparison - Sources of Data

The sources of data explored are listed below :

6.1

Dunn and Bradstreet - Business Ratios

This publication lists the median and quartile performance of a sample of companies in a number of industry groups . However, publication ceased in 1968 and, although a list of some of the companies studied in 1967 was given, the list varied from sample to sample, thus making it difficult to complete the study up to 1971.

6.2

Department of Trade and Industry - Business Monitor M3

The Department of Trade and Industry collects balance-sheet data for all quoted and non-quoted companies, Business Monitor being a summary of these. As complete data is required, it is unlikely that results for 1971 would be available until the summer of 1973. The data is grouped into Standard Industrial Classification (SIC) main groups. As the researcher wished to compare the performance of companies competing in the same markets, this method of classification was inappropriate for the study. The source was finally rejected because there was no information on the variability of financial performance within each market.

6.3

NEDO

The research department of NEDO has studied the average performance of companies in a number of markets, each study being published separately. However, not all the markets studied by the researcher are covered.

6.4

Department of Trade and Industry

Some of the raw data for Business Monitor M3 is stored by company on computer files under the main headings of net assets, profitability and liquidity, and listed in order of size by net assets. The department has been concerned with classifying companies by market similarity for some period of time and the companies in the computer print-out are grouped in this way.

In cases where the company competed in a number of 'markets', the one contributing the maximum amount to turnover was chosen. This method of classificayion, plus the data available fitted the researchers requirements exactly. Unfortunately, it has only been available since 1969, and 1970 data was not released until 1971. However as it appeared that aggregate data was not available in the form required, it was decided to use the list of companies as the basis for the market analysis and to search elsewhere for data.

6.5

Extel Cards

Of the 7000 quoted British companies, Extel covers 4000 and, therefore, data for some of the companies on the market list was not readily available. Although, it would have been possible to search for the rest in their files in Companies House, inconsistencies in methods of analysis could have arisen. The data on the cards was in raw form, net assets were only available for the previous three years on any one card and a great deal of calculation plus further searching in Extel files would have been required.

6.6

Moodies Card and Small Card Service

Moodies cover 5000 of the 7000 quoted companies and publish turnover and profit/capital employed for at least the previous five years. It was decided to use this source for data, particularly as method of calculation of ratios would be consistent.

6.7

Companies House - Company Reports

This was rejected in favour of the above for reasons of ease and consistency.

Market Comparison - Method Adopted

7.1

Summary of sources of sample data :

Company list	-	Board of Trade 1969 final list
Turnover	-	Moodies Cards and Small Cards
Return on net assets (or Return on Capital employed)	-	Moodies Cards and Small Cards

7.2

Choice of Sample :

In some cases, the list of companies within one classification was so extensive that a sample was chosen. In order to obtain a representative spread in terms of size ; and equal space was taken between each observation (i. e. every 3rd or 4th). In each case, a sample of between 20 and 30 companies was chosen. The results shown in table 2, section 5 of this chapter indicate no relationship between size and profitability and it was thus assumed that no bias in the estimates of population profitability were incurred by the method of choice of sample.

7.3

Problem of Time Periods

Although all companies publish accounts for each year, they do not all define the year in the same terms. Thus, some may use the financial year and others the calendar year. The researcher does not see any realistic method of avoiding this problem, and therefore merely wishes to indicate that it could cause some bias in the final results.

Method of Data Analysis

8.1

The mean and standard deviation of the population from which each sample was drawn was estimated for both turnover and return on capital over the five years.

Thus : x = turnover or return on capital

n = number of observations in sample

$$\text{Mean} = \frac{\sum x}{n}$$

$$\text{Standard Deviation} = \sqrt{\frac{\sum (x-\bar{x})^2}{n-1}}$$

8.2

For each year, the company interviewed was compared with the market by means of a score which indicated the difference from the mean compared with the average difference from the mean :

$$\text{SCORE} = \frac{\text{COMPANY PERFORMANCE - MEAN}}{\text{STANDARD DEVIATION}}$$

Interpretation of Scores

9.1 A positive score indicated above average performance or size

A zero score indicated average performance or size

A negative score indicated below average performance or size.

9.2 A positive trend in the score of size indicated that the company had grown at a greater rate than the companies in the market.

A negative trend in the score of size indicated that the company had grown at a slower rate than the companies in the market.

The same interpretation was applied to profitability.

The complete market analysis for each company can be found with each company report.

Problems encountered with Foseco-Minsep

9.3 It was possible to obtain the necessary information in all but one case, that of Foseco Minsep, where the two acquisitions discussed were made by two very distinct divisions operating in different markets. The only data available for each of the division was that of Trading Profit and Turnover, and it was therefore necessary to test whether margins could be substituted for RONA in this case. Accordingly, similar data was collected for all competing companies. For each of the years considered, the companies were ranked by Return on Net Assets, and by Gross Margin and tested for similarity in ranking. The results, shown in tables 3 indicated no significant difference in rankings in all but one case. It was therefore considered valid to use the Gross Margins for the market analysis in this case.

TABLES 3

Margins v. ROCE

A 46-4 - Building and Construction

Year	Sample No.	Spearman's Rho	S.L.	Result
1967	10	-0.27	10%	Sig. difference
1968	16	0.4	10%	No difference.
1969	17	0.62	1%	No difference.
1970	18	0.74	1%	No difference.
1971	17	0.39	10%	No difference.

B 26-4 - Metallurgy

Year	Sample No.	Spearman's Rho	S.L.	Result
1967	15	0.37	10%	No difference
1968	19	0.46	5%	"
1969	19	0.63	1%	"
1970	19	0.75	1%	"
1971	19	0.60	1%	"

Analysis of financial scores

9.4 In order to interpret the results, it was decided to test for consistency - an identifiable trend - by correlating the scores described in section 8.1 of this chapter and shown in individual reports with time. This is seen in columns 7,8,9 of tables 4 and 5. It was therefore possible to classify the companies into those which showed significant trends, and those whose performance was erratic when compared with competitors. (see tables 6).

9.5 For those companies where a significant trend was identified, the regression coefficient was calculated, showing the rate at which Size or Profitability was moving against the market, and a ranking obtained (See tables 7).

The companies where no significant trend was identified were ranked by the amount by which they fluctuated around the market trend. The standard deviation was used as a measure of variability (see tables 8).

9.6 In order to obtain an overall ranking of companies, the mean score for both Size and Profitability was used (see table 9).

9.7 The data shown will be used in the analysis of aquisition strategies adopted by the sample companies.

TABLE 4 SIZE - SCORES

	1967	1968	1969	1970	1971	P	Df.	Result.
Airfix	0.24	0.29	0.45	0.49	0.71	0.77	3	Sig*
British Oxygen	2.20	4.25	5.00	5.90	6.65	0.98	3	Sig
Burton	1.43	1.37	1.23	1.40	1.25	-0.58	3	Not.Sig.
Calor	0.00	0.10	0.07	0.00	-0.05	-0.54	3	Not.Sig.
Ciba-Geigy	NA	1.35	1.48	1.40	1.53	0.82	2	Sig
Foseco-Metallurgy	NA	NA	0.46	0.50	0.35	-0.20	1	Not.Sig.
Building	NA	NA	-0.57	-0.63	-0.65	-0.96	1	Not Sig.
Gliksten	0.31	0.41	0.42	0.31	0.91	0.70	3	Sig*
Izal	-0.32	-0.40	-0.42	-0.38	-0.49	-0.86	3	Sig
Laporte	0.39	0.69	0.80	0.84	0.76	0.78	3	Sig*
Mann Egerton	0.86	1.15	1.70	1.33	0.97	0.19	3	Not Sig
Marwin	NA	NA	-0.52	-0.43	-0.47	-0.55	1	Not Sig.
Quinton Hazell	NA	-0.35	0.09	0.01	0.06	0.59	2	Not Sig
Richard Johnson	10.11	6.18	5.27	5.69	5.88	-0.72	3	Sig*
Ruberoid	-0.33	-0.24	-0.27	-0.36	-0.39	-0.22	3	Not Sig.
Steetley	0.26	0.65	0.63	1.21	1.68	0.96	3	Sig

* Significant at 10%

P = Product moment correlation coefficient.

TABLE 5: PROFITABILITY- SCORES

	1967	1968	1969	1970	1971	P	Df	Result
Airfix	0.30	-0.42	0.28	0.28	-0.07	0.08	3	Not Sig
British Oxygen	-0.90	-0.93	-0.90	-0.62	-0.87	0.46	3	Not Sig
Burton	-0.77	-0.60	-0.54	-0.60	-0.42	0.84	3	Sig
Calor	-0.98	-0.37	-0.19	-0.02	-0.19	0.78	3	Sig*
Ciba-Geigy	-1.17	-1.25	-1.12	-1.03	-1.30	-0.06	3	Not Sig
Foseco-Metallurgy	NA	NA	0.84	0.44	0.46	-0.84	1	Not Sig
Building	NA	NA	-1.28	-0.77	-0.08	0.73	1	Not Sig
Gliksten	-0.14	0.92	1.15	-0.66	-0.58	-0.44	3	Not Sig
Izal	1.61	0.72	0.63	0.22	1.75	-0.05	3	Not Sig
Laporte	-0.59	-0.75	-0.81	-0.74	-1.53	-0.84	3	Sig
Mann Egerton	0.34	-0.01	0.34	-0.09	0.14	-0.10	3	Not Sig
Marwin	7.22	2.19	1.21	0.30	-1.22	-0.92	3	Sig
Quinton Hazell	-0.34	-0.42	-0.67	-0.05	0.39	0.71	3	Sig*
Richard Johnson	-0.01	-0.78	1.34	-0.82	-0.89	-0.30	3	Not Sig
Ruberoid	0.00	-0.35	-0.50	-0.75	-0.52	-0.80	3	Sig*
Steetley	0.12	0.37	0.12	0.12	-0.13	-0.67	3	Sig*

* Significant at 10%

TABLES 6: A SIZE

SIGNIFICANT TRENDS	NOT SIGNIFICANT TRENDS
+ Airfix	Burton
+ British Oxygen	Calor Gas
+ Ciba-Geigy	Foseco - Metallurgy (P)
+ Gliksten	Building (V)
- Izal	Mann Egerton
+ Laporte	Quinton Hazell
- Richard Johnson	Ruberoid
+ Steetley	Marwin

B PROFITABILITY

SIGNIFICANT TRENDS	NOT SIGNIFICANT TRENDS
+ Burton	Airfix
+ Calor Gas	British Oxygen
- Laporte	Ciba-Geigy
+ Quinton Hazell	Foseco-Metallurgy
- Ruberoid	Building
- Steetley	Gliksten
- Marwin	Izal
	Mann Egerton
	Richard Johnson

\+ indicates increasing against the market

\- indicates decreasing against the market.

TABLES 7: SIGNIFICANT TRENDS

A SIZE:

	Regression Coefficient	Rank
Airfix	0.09	4=
British Oxygen	1.06	1
Ciba-Geigy	0.05	6
Gliksten	0.11	3
Izal	-0.03	7
Laporte	0.09	4=
Richard Johnson	-0.90	8
Steetley	0.34	2

B PROFITABILITY

	Regression Coefficient	Rank
Burton	0.07	3=
Calor Gas	0.18	1
Laporte	-0.30	6
Quinton Hazell	0.10	2
Ruberoid	-0.14	5
Steetley	0.07	3=
Marwin	-1.87	7

TABLES 8: NOT SIGNIFICANT TRENDS

A SIZE

	Standard Deviation	Rank
Burton	0.17	7
Calor Gas	0.05	3
Foseco-Metallurgy (P)	0.06	4=
Building (V)	0.03	1
Mann Egerton	0.30	8
Quinton Hazell	0.13	6
Ruberoid	0.06	4=
Marwin	0.04	2

B PROFITABILITY

	Standard Deviation	Rank
Airfix	0.28	5
British Oxygen	0.11	2
Ciba-Geigy	0.09	1
Foseco-Metallurgy	0.18	3=
Building	0.50	7
Gliksten	0.34	6
Izal	0.52	8
Mann Egerton	0.18	3=
Richard Johnson	0.85	9

TABLE 9: MEAN SCORES

	SIZE		PROFITABILITY	
	MEAN	RANK	MEAN	RANK
Airfix	0.436	10	0.074	8
British Oxygen	4.800	2	-0.844	14
Burton	1.452	3	-0.586	12
Calor	0.024	11	-0.350	10
Ciba-Geigy	1.440	4	-1.174	16
Foseco-Metallurgy(P)	0.437	9	0.580	3
Building(V)	-0.617	16	-0.710	13
Gliksten	0.472	8	0.138	6
Izal	-0.402	14	0.986	2
Laporte	0.696	7	-1.052	15
Mann Egerton	1.202	5	0.144	5
Marwin	-0.473	15	1.940	1
Quinton Hazell	-0.047	12	-0.218	9
Richard Johnson	6.626	1	0.232	4
Ruberoid	-0.318	13	-0.424	11
Steetley	0.886	6	0.120	7

(P = 0.25, 5% SL = 0.377).

CONSENSUS TESTS

D1 As the number of observers interviewed varied from company to company, it was necessary to specify some rule for determining agreement amongst observers. It would be necessary for this rule to vary with the number of items from which observers were choosing within a particular company, as it would be more likely for them to agree by chance when choosing from a field of 4 than when choosing from a field of 24.

If M = size of field from which observers choose, and assuming all items in the field have an equal chance of being chosen at random, then

$$P(\text{one particular item being chosen at random}) = \frac{1}{M}$$

Let N = no. of observers interviewed in a company ($N = 2 \longrightarrow 5$)
then using the binomial distribution,
P(R observers choosing one particular item at random) =

$$\frac{N!}{R!\,(N-R)!}\left(\frac{1}{M}\right)^{R}\left(\frac{M-1}{M}\right)^{N-R}$$

Tables B show the probabilities of at least R observers choosing one particular item at random. For example, in Table B3, with 4 observers and 10 items to choose from,

(a) the probability of at least 1 person choosing the particular item considered at random = 0.3439
($P[1 + 2 + 3 + 4]$ = probability of one or two or three of four observers.)

(b) the probability of at least three people choosing the particular item considered at random = 0.0037
($P[3 + 4]$ = 0.0037)

Therefore, if the consensus level is set at three out of four people choosing a particular item, the probability that this has occurred merely by chance = 0.0037

That is, P(error) = 0.0037

From the above example, if the researcher were prepared to take a maximum risk of being wrong of 0.10, the consensus level would be set at two out of four people choosing a particular item, since

$$P(2 + 3 + 4) = 0.0523$$

It is in this way that Table A, which shows the required consensus level for varying fields, risks and observers, was generated.

BLE A CONSENSUS LEVELS

IELD	2 OBSERVERS			3 OBSERVERS			4 OBSERVERS			5 OBSERVERS		
	P(ERROR)			P(ERROR)			P(ERROR)			P(ERROR)		
	<0. 10	<0. 05	<0. 01	<0. 10	<0. 05	<0. 01	<0. 10	<0. 05	<0. 01	<0. 10	<0. 05	<0. 0
2	2	2	2	3	3	3	4	4	4	5	5	5
3	2	2	2	3	3	3	4	4	4	4	4	5
4	2	2	2	3	3	3	3	4	4	4	4	5
5	2	2	2	3	3	3	3	3	4	3	4	4
6	2	2	2	2	3	3	3	3	4	3	3	4
7	2	2	2	2	3	3	3	3	4	3	3	4
8	2	2	2	2	2	3	2	3	3	3	3	4
9	2	2	2	2	2	3	2	3	3	2	3	4
10	2	2	1	2	2	3	2	3	3	2	3	3
11	2	2	1	2	2	3	2	2	3	2	3	3
12	2	2	1	2	2	3	2	2	3	2	3	3
13	2	2	1	2	2	3	2	2	3	2	3	3
14	2	2	1	2	2	3	2	2	3	2	2	3
15	2	2	1	2	2	3	2	2	3	2	2	3
16	2	2	1	2	2	3	2	2	3	2	2	3
17	2	2	1	2	2	3	2	2	3	2	2	3
18	2	2	1	2	2	2	2	2	3	2	2	3
19	2	2	1	2	2	2	2	2	3	2	2	3
20	1	2	1	2	2	2	2	2	3	2	2	3
21	1	2	1	2	2	2	2	2	3	2	2	3
22	1	2	1	2	2	2	2	2	3	2	2	3
23	1	2	1	2	2	2	2	2	3	2	2	3
24	1	2	1	2	2	2	2	2	2	2	2	3
25	1	2	1	2	2	2	2	2	2	2	2	3
26	1	2	1	2	2	2	2	2	2	2	2	3
27	1	2	1	2	2	2	2	2	2	2	2	3
28	1	2	1	2	2	2	2	2	2	2	2	3
29	1	2	1	1	2	2	2	2	2	2	2	3
30	1	2	1	1	2	2	2	2	2	2	2	3

: B1 - 2 OBSERVERS

FIELD	P(1 + 2)	P(2)
2	.7500	.2500
3	.5556	.1111
4	.4375	.0625
5	.3600	.0400
6	.3056	.0278
7	.2653	.0204
8	.2344	.0156
9	.2099	.0123
10	.1900	.0100
11	.1736	.0083
12	.1597	.0069
13	.1479	.0059
14	.1378	.0051
15	.1289	.0044
16	.1211	.0039
17	.1142	.0035
18	.1080	.0031
19	.1025	.0028
20	.0975	.0025
21	.0930	.0023
22	.0888	.0021
23	.0851	.0019
24	.0816	.0017
25	.0784	.0016
26	.0754	.0015
27	.0727	.0014
28	.0702	.0013
29	.0678	.0012
30	.0656	.0011

TABLE B2 - 3 OBSERVERS

FIELD	P(1+2+3)	P(2+3)	P(3)
2	.8750	.5000	.1250
3	.7037	.2593	.0370
4	.5781	.1563	.0156
5	.4880	.1040	.0080
6	.4213	.0741	.0046
7	.3703	.0554	.0029
8	.3301	.0430	.0020
9	.2977	.0343	.0014
10	.2710	.0280	.0010
11	.2487	.0233	.0008
12	.2297	.0197	.0006
13	.2135	.0168	.0005
14	.1993	.0146	.0004
15	.1870	.0127	.0003
16	.1760	.0112	.0002
17	.1663	.0100	.0002
18	.1576	.0089	.0002
19	.1497	.0080	.0001
20	.1426	.0073	.0001
21	.1362	.0066	.0001
22	.1303	.0060	.0001
23	.1248	.0055	.0001
24	.1199	.0051	.0001
25	.1153	.0047	.0001
26	.1110	.0043	.0001
27	.1070	.0040	.0001
28	.1034	.0037	.0000
29	.0999	.0035	.0000
30	.0967	.0033	.0000

TABLE B 3 - 4 OBSERVERS

FIELD	P(1+2+3+4)	P(2+3+4)	P(3+4)	P(4)
2	.9375	.6875	.3125	.0625
3	.8025	.4074	.1111	.0123
4	.6836	.2617	.0508	.0039
5	.5904	.1808	.0272	.0016
6	.5177	.1319	.0162	.0008
7	.4602	.1004	.0104	.0004
8	.4138	.0789	.0071	.0002
9	.3757	.0636	.0050	.0002
10	.3439	.0523	.0037	.0001
11	.3170	.0438	.0028	.0001
12	.2939	.0372	.0022	.0000
13	.2740	.0320	.0017	.0000
14	.2565	.0278	.0014	.0000
15	.2412	.0244	.0011	.0000
16	.2275	.0215	.0009	.0000
17	.2153	.0192	.0008	.0000
18	.2044	.0172	.0007	.0000
19	.1945	.0155	.0006	.0000
20	.1855	.0140	.0005	.0000
21	.1773	.0128	.0004	.0000
22	.1698	.0117	.0004	.0000
23	.1629	.0107	.0003	.0000
24	.1565	.0098	.0003	.0000
25	.1507	.0091	.0002	.0000
26	.1452	.0084	.0002	.0000
27	.1401	.0078	.0002	.0000
28	.1354	.0073	.0002	.0000
29	.1310	.0068	.0002	.0000
30	.1268	.0064	.0001	.0000

TABLE B4 - 5 OBSERVERS

FIELD	P(1+2+3+4+5)	P(2+3+4+5)	P(3+4+5)	P(4+5)	P(5)
2	.9688	.8125	.5000	.1875	.0313
3	.8683	.5391	.2099	.0453	.0041
4	.7627	.3672	.1035	.0156	.0010
5	.6723	.2627	.0579	.0067	.0003
6	.5981	.1962	.0355	.0033	.0001
7	.5373	.1518	.0233	.0018	.0001
8	.4871	.1207	.0161	.0011	.0000
9	.4451	.0982	.0115	.0007	.0000
10	.4095	.0815	.0086	.0005	.0000
11	.3791	.0686	.0065	.0003	.0000
12	.3528	.0586	.0051	.0002	.0000
13	.3298	.0506	.0040	.0002	.0000
14	.3096	.0441	.0033	.0001	.0000
15	.2918	.0388	.0027	.0001	.0000
16	.2758	.0344	.0022	.0001	.0000
17	.2615	.0307	.0019	.0001	.0000
18	.2486	.0276	.0016	.0000	.0000
19	.2369	.0249	.0013	.0000	.0000
20	.2262	.0226	.0012	.0000	.0000
21	.2165	.0206	.0010	.0000	.0000
22	.2075	.0188	.0009	.0000	.0000
23	.1993	.0173	.0008	.0000	.0000
24	.1917	.0160	.0007	.0000	.0000
25	.1846	.0148	.0006	.0000	.0000
26	.1781	.0137	.0005	.0000	.0000
27	.1720	.0127	.0005	.0000	.0000
28	.1663	.0119	.0004	.0000	.0000
29	.1609	.0111	.0004	.0000	.0000
30	.1559	.0104	.0004	.0000	.0000

STATISTICAL ANALYSIS

18.1

Three criteria are important when choosing a statistical test for analysing data, viz;

1. The nature of the population from which the data was drawn.
2. The required power-efficiency of the results.
3. The scale of measurement used.

18.2

The most powerful tests are those which fall under the heading of parametric statistics, but these tests require that the parameters of the population from which the data is drawn are known. In the case of the results of the questionnaire it is not possible to specify these parameters or to make any justifiable assumptions and thus tests which do not make such assumptions must be sought - i.e. non-parametric tests.

18.3

Further, the methods of measurement used in the data collection and collation is of a relatively low level. For example, in ranking data it is not possible to identify the absolute magnitude of the difference in preference between any pair of ranks, nor is it possible to assume equal differences. Thus parametric tests, which require the use of all the arithmetic operations, are not appropriate. In the case of non-parametric tests only relative positions are used.

8.4

In the research the data is presented in the form of scores or ranks, and the tests used are Chi-squared, Spearman's Rank Correlation Coefficient and Kendall's Coefficient of Concordance. It is regrettable that, due to the nature of the data, it is not possible to test the interactions using multivariate analysis. However, this is overcome to some degree by the use of Kendall's Coefficient of Concordance.

NOTE: A full discussion of the above points may be found in Non-Parametric Stastics by S. Siegel (McGraw-Hill)

CHAPTER FOUR

ANALYSIS OF RESULTS

1.1 INTRODUCTION

Many authors have suggested that companies lacking a formal planning system operate in a condition of problem-solving, rather than one of problem-avoidance.

Thus in the field of acquisitions, such a system would identify the need to acquire, scan the environment, and match possible companies with both corporate objectives and its strengths and weaknesses.

Since the process will thus have been a careful one with executives aware of the characteristics of the victim firm, it would suggest little difficulty in post-acquisition digestion once the acquiring company attempts to manage the new addition. This research has studied the acquisition process from the initial consideration of such a move, to post-acquisition evaluation of success, in 15 U.K. companies. This chapter compares their experiences, and in analysing the results, suggests how companies can improve their performance. Using the format of the questionnaire, viz.

1. Planning system and acquisition trigger.
2. Identification of area of search and internal audit.
3. Pre-acquisition decision criteria.
4. The Bid.
5. Post acquisition action.

Whilst Chapter 5 will summarise the major conclusions of this thesis, inferences will be made at each stage of the analysis throughout this chapter in view of its length and complexity.

THE COMPLETE PROCESS

THE PLANNING SYSTEM:

2.1 Table 1 shows the characteristics of the sample companies at the time of each acquisition discussed, a test of consensus having been applied to the responses of executives within each company.

	ODE	BJECTIVES	ONSTR.	& W	ROD/MKT.	NTROL	ORE	RIGGER	CUS?	NCEPT.	BJECTIVES	& W	NERGY	ORE -	ITERIA	CLARE	OURCE	B I D	RICE	ET ASSETS	AX. PRICE	ORG.	MGT	ASSETS	RODUCTS	MKTING	RODUCT.N	ONTROL	SCORE	TIME	UCCESS
AIRFIX: AIRBORNE	AA	X	X	INF X	X	FOR REG	27	X	X	Yes	X	X	No	37	X	0	C	Ca	NA	No	No	3	2	1	2	2	3	3	76	3	X
MECCANO	AM	X	X	INF IRR	INF X	FOR REG	40	X	NA	Yes	Yes	Yes	No	87	Yes	0	C	Ca	NA	No	X	1	1	1	2	1	1	3	48	1	3
BRITISH OXYGEN	B	FOR REG	FOR REG	FOR REG	X	X REG	70	Yes	Yes	Yes	Yes	Yes	No	87	Yes	0	C	Ca	No	Yes	Yes	2	1	1	1	1	1	2	43	1	3
BURTON: EVANS	BE	FOR REG	FOR REG	FOR REG	FOR REG	FOR REG	100	X	Yes	Yes	Yes	Yes	Yes	100	Yes	0	C	Sh+ L	Yes	Yes	No	3	2	2	1	1	NA	2	61	3	3
RYMAN	BR	FOR REG	FOR REG	FOR REG	FOR REG	FOR REG	100	X	Yes	Yes	Yes	Yes	Yes	100	Yes	0	C	L	Yes	Yes	X	3	2	2	1	1	NA	3	67	3	3
CALOR: KOSANGAS	CK	X	X	NO SYST	NO SYST	FOR REG	27	No	Yes	Yes	X	X	Yes	50	Yes	0	C	Ca	NA	Yes	Yes	3	2	1	2	3	2	3	76	3	2
DIRECT NITROGEN	CD	X	X	NO SYST	NO SYST	FOR REG	27	No	Yes	Yes	X	X	Yes	50	Yes	0	C	Ca	NA	No	No	3	3	1	1	1	1	3	62	2	3
CIBA-GEIGY	C	INF REG	INF REG	INF REG	INF REG	FOR REG	65	Yes	Yes	Yes	Yes	X	Yes	75	Yes	0	C	NA	NA	NA	NA	3	1	2	2	1	2	3	67	2	3
FOSECO: VALAC	FV	X	X	X IRR	FOR REG	FOR REG	47	X	Yes	Yes	No	X	X	37	X	0	C	Ca + Sh	NA	X	No	1	1	1	1	1	1	3	43	X	3
PROTIM	FP	NO SYST	NO SYST	NO SYST	NO SYST	FOR REG	37	No	Yes	X	No	No	X	25	No	0	C	Sh	Yes	Yes	No	1	1	1	1	1	1	2	38	1	2
GLIKSTEN	G	FOR REG	X	X	X	FOR REG	40	Yes	Yes	X	Yes	Yes	Yes	75	Yes	0	C	Sh + L	NA	X	No	2	1	3	1	2	1	3	62	1	3
IZAL (Excl.obs.3)	I	FOR REG	INF IRR	NO SYST	X	FOR REG	57	Yes	Yes	Yes	X	X	X	25	X	0	C	Ca	X	X	X	3	3	3	1	1	1	3	71	1	3
LAPORTE	L	X	X	X	FOR REG	FOR REG	40	No	NA	X	Yes	Yes	Yes	75	Yes	0	C	NA	NA	NA	NA	3	1	1	1	3	3	3	71	3	3
MANN EGERTON	ME	X	X	FOR X	X	FOR REG	30	X	Yes	Yes	X	Yes	No	62	Yes	0	C	Sh + L	NA	No	No	2	3	1	2	3	NA	3	78	X	3
MARWIN	M	NO SYST	NO SYST	NO SYST	X	FOR REG	30	No	NA	No	No	No	No	50	Yes	0	C	X	No	No	No	3	1	3	3	3	3	3	90	3	2
QUINTON HAZELL: KERRY	QK	X	X	X	FOR REG	FOR REG	40	Yes	Yes	Yes	X	X	X	25	Yes	0	C	Ca + Sh	X	No	No	3	3	2	3	2	NA	3	89	X	3
STANDARD TYRE	QS	X	X	X	FOR REG	FOR REG	40	Yes	Yes	Yes	X	X	Yes	50	Yes	0	B + C	Ca + Sh	Yes	X	X	3	2	2	1	2	NA	2	67	1	3
RICHARD JOHNSON	RJ	FOR REG	FOR REG	INF X	X REG	FOR REG	73	Yes	Yes	Yes	Yes	Yes	No	87	Yes	0	C	Ca+ L	Yes	X	No	3	3	2	1	3	1	3	76	3	3
RUBEROID	R	FOR REG	FOR REG	FOR REG	FOR REG	FOR REG	100	Yes	Yes	Yes	Yes	Yes	Yes	100	Yes	0	C	Ca+ Sh	NA	Yes	No	2	3	1	1	3	3	X	62	X	3
STEETLEY	S	FOR REG	FOR REG	FOR REG	FOR REG	FOR REG	100	Yes	Yes	Yes	Yes	Yes	Yes	100	Yes	0	B + C	Ca OR Sh+L	Yes	Yes	No	3	3	2	1	2	1	3	71	X	3

X = NO CONSENSUS

TABLE 1

	DE	JECTIVES	NSTR.	& W	OD/MKT.	NTROL	ORE	IGGER	CUS?	NCEPT	ECTIVES	& W	NERGY	ORE	TERIA	CLARE	URCE	I D	ICE	ASSETS	PRICE	ORG.	MGT	SSETS	ODUCTS	KTING	ODUCTN.	NTROL	CORE	ME	CCESS
AIRFIX: AIRBORNE	AA	X	X	INF X	X	FOR REG	27	X	X	Yes	X	X	No	37	X	0	C	Ca	NA	No	No	3	2	1	2	2	3	3	76	3	X
MECCANO	AM	X	X	INF IRR	INF X	FOR REG	40	X	NA	Yes	Yes	Yes	No	87	Yes	0	C	Ca	NA	No	X	1	1	1	2	1	1	3	48	1	3
BRITISH OXYGEN	B	FOR REG	FOR REG	FOR REG	X	X REG	70	Yes	Yes	Yes	Yes	Yes	No	87	Yes	0	C	Ca	No	Yes	Yes	2	1	1	1	1	1	2	43	1	3
BURTON: EVANS	BE	FOR REG	FOR REG	FOR REG	FOR REG	FOR REG	100	X	Yes	Yes	Yes	Yes	Yes	100	Yes	0	C	Sh+ L	Yes	Yes	No	3	2	2	1	1	NA	2	61	3	3
RYMAN	BR	FOR REG	FOR REG	FOR REG	FOR REG	FOR REG	100	X	Yes	Yes	Yes	Yes	Yes	100	Yes	0	C	L	Yes	Yes	X	3	2	2	1	1	NA	3	67	3	3
CALOR: KOSANGAS	CK	X	X	NO SYST	NO SYST	FOR REG	27	No	Yes	Yes	X	X	Yes	50	Yes	0	C	Ca	NA	Yes	Yes	3	2	1	2	3	2	3	76	3	2
DIRECT NITROGEN	CD	X	X	NO SYST	NO SYST	FOR REG	27	No	Yes	Yes	X	X	Yes	50	Yes	0	C	Ca	NA	No	No	3	3	1	1	1	1	3	62	2	3
CIBA-GEIGY	C	INF REG	INF REG	INF REG	INF REG	FOR REG	65	Yes	Yes	Yes	Yes	X	Yes	75	Yes	0	C	NA	NA	NA	NA	3	1	2	2	1	2	3	67	2	3
FOSECO: VALAC	FV	X	X	X IRR	FOR REG	FOR REG	47	X	Yes	Yes	No	X	X	37	X	0	C	Ca + Sh	NA	X	No	1	1	1	1	1	1	3	43	X	3
PROTIM	FP	NO SYST	NO SYST	NO SYST	NO SYST	FOR REG	37	No	Yes	X	No	No	X	25	No	0	C	Sh	Yes	Yes	No	1	1	1	1	1	1	2	38	1	2
GLIKSTEN	G	FOR REG	X	X	X	FOR REG	40	Yes	Yes	X	Yes	Yes	Yes	75	Yes	0	C	Sh + L	NA	X	No	2	1	3	1	2	1	3	62	1	3
IZAL (Excl.obs.3)	I	FOR REG	INF IRR	NO SYST	X	FOR REG	57	Yes	Yes	Yes	X	X	X	25	X	0	C	Ca	X	X	X	3	3	3	1	1	1	3	71	1	3
LAPORTE	L	X	X	X	FOR REG	FOR REG	40	No	NA	X	Yes	Yes	Yes	75	Yes	0	C	NA	NA	NA	NA	3	1	1	1	3	3	3	71	3	3
MANN EGERTON	ME	X	X	FOR X	X	FOR REG	30	X	Yes	Yes	X	Yes	No	62	Yes	0	C	Sh + L	NA	No	No	2	3	1	2	3	NA	3	78	X	3
MARWIN	M	NO SYST	NO SYST	NO SYST	X	FOR REG	30	No	NA	No	No	No	No	50	Yes	0	C	X	No	No	No	3	1	3	3	3	3	3	90	3	2
QUINTON HAZELL: KERRY	QK	X	X	X	FOR REG	FOR REG	40	Yes	Yes	Yes	X	X	X	25	Yes	0	C	Ca + Sh	X	No	No	3	3	2	3	2	NA	3	89	X	3
STANDARD TYRE	QS	X	X	X	FOR REG	FOR REG	40	Yes	Yes	Yes	X	X	Yes	50	Yes	0	B + C	Ca + Sh	Yes	X	X	3	2	2	1	2	NA	2	67	1	3
RICHARD JOHNSON	RJ	FOR REG	FOR REG	INF X	X REG	FOR REG	73	Yes	Yes	Yes	Yes	Yes	No	87	Yes	0	C	Ca+ L	Yes	X	No	3	3	2	1	3	1	3	76	3	3
RUBEROID	R	FOR REG	FOR REG	FOR REG	FOR REG	FOR REG	100	Yes	Yes	Yes	Yes	Yes	Yes	100	Yes	0	C	Ca+ Sh	NA	Yes	No	2	3	1	1	3	3	X	62	X	3
STEETLEY	S	FOR REG	FOR REG	FOR REG	FOR REG	FOR REG	100	Yes	Yes	Yes	Yes	Yes	Yes	100	Yes	0	B + C	Ca OR Sh+L	Yes	Yes	No	3	3	2	1	2	1	3	71	X	3

X = NO CONSENSUS

TABLE 1

The following scoring systems were used in order to facilitate later analysis.

Section 1: Planning system and acquisition trigger.

Formal or regular - 3

Informal or irregular - 2

No system - 1

No consensus - 0

Thus a high score would indicate a formal, regular system of planning, which the executives interviewed agreed to exist.

The maximum possible score is 30 and as in other sections, individual scores are shown in percentage form.

Results shown in this table may differ from those in the individual reports since the more stringent definition of consensus, as described in the methodology section, has been used.

Section 2: Internal audit.

For each area, viz:

Concept of Business

Objectives

Strengths and weaknesses

Synergy

YES = 2

NO = 1

NO CONSENSUS = 0

MAXIMUM POSSIBLE SCORE = 8

Thus a high score indicates a high level of pre-acquisition planning and can be related to the normal planning system.

Thus a high score indicates substantial change.

Timeliness:	Within time	=	1
	On time	=	2
	Late	=	3
	No consensus	=	0
Success:	Yes	=	3
	Qualified	=	2
	No	=	1
	No consensus	=	0

2.2 THE PLANNING SYSTEM

The researcher felt that the type of corporate planning system used by companies would influence their approach to pre-acquisition evaluation of strategy. It was therefore necessary to first identify the extent of planning in each of the sample companies at the time of the acquisition discussed.

Previous researchers have merely asked one executive if a formal system existed; an approach which can be criticised from two aspects -

a) The perception of one person does not necessarily comprise the corporate truth.

b) The general nature of the question masks the varying nature of the systems.

These points are well born out in the research results as shown in the first section of table 1. In some companies there is substantial disagreement on the approach to planning adopted and in others the extent of formality and regularity varies from area to area. This leads to a wide range of scores (see column 7) indicating that the sample companies had reached differing stages in their development of a planning system. A more detailed study of this section, and in particular, the reasons for disagreement, will be discussed later in this chapter.

2.3 Executives were asked if the original signal that an acquisition might be necessary had arisen out of the planning system that they had previously described. The responses, summarised in table 2, indicated a very strong relationship.

Acquisition Trigger	Planning System Score: Above Median and equal	Planning System Score: Below Median	Total
YES*	9	0	9
NO	0	5	5
No Consensus	4	2	6
Total	13	7	20

TABLE 2

($\chi^2 = 14.14$, d.f. = 2, 5% SL = 5.99)

*indicates that the trigger had arisen out of the system.

The results indicate that the more formal the planning system the more likely it is to initiate the identification of potential probelm areas. Whilst this is to be expected, it does emphasise the fact that a loose system, i.e. one which is ill-defined and used irregularly, is of very limited value. It could be said that on this basis, planning does pay.

2.4 Although the results indicate that a formal system tended to identify the need for acquisition, results were less conclusive when responses were probed further. In all but one case, executives explained that the acquisition trigger itself, which had not necessarily emanated from a system, focussed attention upon specific categories of company. Thus the identification of an area of search was independent of the nature of the planning system. Taken further, although the trigger had simplified the choice, it did not influence the extent to which the company subsequently conducted an internal audit.

THE AUDIT

2.5 In order to examine the relationship between the planning system and the extent of company audit, the scores for each of the two sections were ranked in order of magnitude. This is shown in table 3.

Co.	Planning System	Audit	Composite Ranking
AA	19	16.5	20
AM	12	6	8
B	6	6	6
BE	2.5	2.5	2.5
BR	2.5	2.5	2.5
CK	19	13.5	17.5
CD	19	13.5	17.5
C	7	9	7
FV	9	16.5	11.5
FP	15	19	19
G	12	9	9.5
I	8	19	13
L	12	9	9.5
ME	16.5	11	14
M	16.5	13.5	15
QK	12	19	16
QS	12	13.5	11.5
RJ	5	6	5
R	2.5	2.5	2.5
S	2.5	2.5	2.5

TABLE 3

The Spearman's Rho test showed no significant difference between the rankings (ρ = 0.71, 5% = 0.377) and thus the extent to which companies used a formal, regular planning system was directly related to the extent to which they conducted an internal audit prior to a choice of company. It is interesting to note that almost all executives interviewed did not view the size of the problem, indicated by the original trigger, or the size of the proposed acquisition, as being factors which would influence the degree to which preliminary analysis was necessary - it was the 'system' which dictated subsequent analysis.

PRE-ACQUISITION CRITERIA

2.6 In 16 of the 20 cases discussed, executives perceived the existence of a list of formal criteria against which to judge possible acquisitions. It is therefore important to question whether the formal decision to acquire was made before, or after, the creation of a list of decision criteria. Although it is not possible to test this directly, consistency in approach will be tested later in this chapter in order to attempt to separate "emotional" from "rational" decisions. However at this stage, the data does suggest that those companies with formal planning and auditing systems, do tend to formalise acquisition criteria. In the one case where no formal criteria were perceived, and the three cases where executives could not agree, companies used very informal planning procedures, being ranked 11.5, 13, 19 and 20 in table 3.

THE BID

2.7 All companies made an open declaration of intent to acquire directly to the Board of the proposed victim firm: a few had acquired shareholdings, but these were considered to be very minor. The consensus of opinion amongst the executives interviewed was that this was the "only fair way" - "the done thing". The resultant negotiations were at least courteous if not friendly - a different picture from that given in the press.

2.8 As was expected, the method of approach to the acquisition did not dictate the method of payment, this being a function of the financial structure and stability of the acquirer and the wishes of the executives of the acquired company. For six of the ten acquired companies which were publicly quoted observers explained that the price paid exceeded the pre-bid price. However when they were asked if the price paid exceeded the net-asset value, a significant relationship existed between this and the extent of formal planning, in those cases where consensus was demonstrated to exist. This is seen in table 4.

	Planning and Auditing System Score		
	Above Median	Below Median	
Exceeded net assets	5	2	7
Not exceeded net assets	1	5	6
	6	7	13

TABLE 4

$\chi^2 = 3.90$, d.f. = 1, 5% SL = 3.84

Thus in relative terms, those companies using the more formal planning and auditing systems tended to pay more for their acquisitions than those with informal or no system at all. This could be interpreted in one of two ways. Either the systems were so rigid that it was impossible to turn back once set in motion necessitating the payment of a premium, or the more careful search tended to unearth the better prospects which were relatively more expensive.

2.9 In order to probe the question of emotional decisions further, executives were asked if the eventual price paid for the acquisition exceeded the maximum price determined by internal discussion. It was felt by the researcher that a more formal system would set a realistic price ceiling, and therefore executives would be more likely to reject a possible acquisition once the price exceeded this limit. Although the research sample is biased in this area, there being no data available for proposed acquisitions which were subsequently rejected, the data obtained does not support the above thesis. In the two cases where executives perceived the ceiling to have been exceeded, the companies were ranked 17 and 6 in table 3 - the composite ranking of planning and audit systems - and in the four cases where executives could not agree, the companies were ranked 2.5, 8, 12, 13 - an even split.

POST-ACQUISITION ACTION

2.10 Although the scoring in the section dealing with post-acquisition action is a little crude, it does reflect the relative magnitude of the required change as viewed by the executives concerned. The data for the areas of change, excluding the questions of timeliness and success, were scored and ranked (see Table 1) and then compared with previous data. No relationship existed between the extent of planning and audit, and the extent to which change eventually took place within the victim firm. (ρ = 0.26, 5% SL = 0.38) This was not surprising in that acquisitions would have occurred for varying reasons, which by their very nature implied the need for some form of change. However, such change should have been anticipated in advance and thus for each category, whether change had or had not taken place, executives were asked whether their decisions had been planned prior to acquisition. It must be noted that the researcher was not asking for detailed plans, just an indication of whether the company had been aware of the need for the subsequent action or inaction. Table 5 shows the consensus responses.

Co.	Organi- sation	Manage- ment	Assets	Products	Marketing	Produc- tion	Control	Score (%)
AA	X	X	YES	YES	YES	NO	X	50
AM	YES	YES	YES	YES	YES	YES	YES	100
B	NO	YES	YES	YES	YES	YES	YES	93
BE	NO	YES	X	YES	YES	NA	YES	75
BR	NO	YES	YES	YES	YES	NA	YES	92
CK	NO	YES	YES	YES	YES	YES	YES	93
CD	X	YES	X	YES	YES	YES	YES	71
C	YES	YES	YES	YES	YES	YES	YES	100
FV	YES	YES	YES	YES	YES	NO	YES	93
FP	NO	NO	YES	YES	YES	YES	YES	86
G	YES	YES	YES	YES	YES	YES	YES	100
I	YES	YES	YES	YES	YES	YES	YES	100
L	NO	YES	X	YES	YES	YES	X	64
ME	YES	NO	YES	YES	YES	NA	YES	92
M	X	YES	X	YES	YES	YES	YES	71
QK	YES	X	X	YES	X	NA	YES	50
QS	YES	NO	NO	YES	YES	NA	YES	83
RS	YES	YES	X	X	YES	YES	X	57
R	X	NO	YES	YES	YES	X	X	50
S	YES	YES	YES	YES	YES	YES	NO	93

TABLE 5

The scoring system applied to this data was:

YES	=	2
NO	=	1
NO CONSENSUS	=	0

A high score indicated that post-acquisition action had been planned prior to a final decision to acquire, whilst a low score indicated a high level of confusion within the company on this aspect. Superficially, the results indicate a high level of planning - in all cases, action in at least half the areas covered was discussed and agreed prior to acquisition. However, when examining the table in more detail, it is interesting to note that lack of planning tended to cluster around organisation structure, asset structure, and management - the more emotive and less tangible areas. When relating these results to previous sections, no causal factors could be found. (ρ = 0.16, 5% SL = 0.38) - and it would therefore appear that a rigid, formal planning procedure does not necessarily pre-empt problems. Indeed in discussions with executives, the researcher's overwhelming impression was that the two pre-emptive factors which could be identified, were the degree of co-operation received from the victim management, and the personality and degree of lateral knowledge of the chief executive.

2.11 In all but one case, executives agreed that the acquisitions made had been successful, although in varying degrees and based upon different criteria. The latter are discussed in detail in the individual reports and will be analysed later in this chapter.

2.12 When asking about the time taken to absorb the acquisition into the new parent body, it was evident that specific timetables were laid down in very few cases, and only in individual functions. Thus, in asking executives if absorption had taken longer or shorter than anticipated, the researcher was in danger of obtaining answers based upon varying perceptions of 'the plan'. However, it was felt that the results would be useful in judging the 'mood' of the company. When testing them against earlier analysis, the only factor which appeared to contribute to lateness was the amount of action required, whether or not it had been planned. (see Table 6).

	Action Score		
	Above Median	Below Median	
Late	7	0	7
On time/early	2	6	8
No consensus	2	3	5
	11	9	20

TABLE 6

(χ^2 = 9.09, d.f. = 2, 5% SL = 5.99)

An above median action score indicates substantial change, and thus companies faced with this were less able to predict the time scale than those faced with minor change: the formal planning system, the extensive internal audit, the formal acquisition criteria were of little help.

SUMMARY

2.12 The first section of the analysis has been concerned with the complete acquisition process as adopted by the sample companies and agreed upon by the executives interviewed, from the planning system used through to post-acquisition evaluation of success. As expected the corporate planning systems varied in formality, regularity and depth, the latter being described by the extent to which the company set prime objectives, scanned the environment, evaluated strengths and weaknesses and monitored product/market strategy. It was this system, rather than the nature of the proposed acquisition, which dictated pre-acquisition procedure; the formal or informal nature of the system which monitored corporate performance continued through the internal company audit and pre-acquisition criteria. However, it was surprising to find that in only one case did this influence continue through the complete process: companies with more formal systems tended to pay more for their acquisitions in relative terms, than those with less formal systems. The extent of pre-acquisition evaluation did not influence the amount of change necessary in the acquired firm, whether or not the need for that change was anticipated; nor did a formal evaluation enable executives to be more specific and accurate in forecasting the time needed for the necessary changes to be completed. Thus it would seem that the mere existence of formal procedures within a company does not necessarily pre-empt problems, but rather

the personalitites of the executives concerned and their use of the contemporary system.

THE PLANNING AND ACQUISITION PROCESS RELATED TO FINANCIAL PERFORMANCE

3.1 As described in the methodology section, the criteria used for the financial evaluation of the acquiring companies were

a) whether a trend in either size or profitability could be identified

b) the mean score of size and profitability over the five years considered.

For each criterion, company results were scored against those of companies competing in the same markets, and thus the next stage of the analysis was to study the complete acquisition process as described, in relation to the financial performance of the sample companies.

PLANNING AND SCANNING

3.2 The question of the value of a planning system per se is very much a matter of debate at present: some authors take the view that formal systems lead to better financial performance whilst others suggest that the two factors can not be related in isolation.

3.2.1 Nevertheless, when examining the data, larger companies did portray differing characteristics from smaller ones, for a significant relationship existed between the type of planning and audit systems adopted by the companies, and both relative size ($\rho = 0.55$, 5% SL = 0.37) and trend in size (see table 7).

SIZE	Planning and Audit System Score		TOTAL
	Above median	Below median	
Significant trend	7	2	9
Not significant trend	3	8	11
TOTAL	10	10	20

TABLE 7

$\chi^2 = 5.05$, d.f. = 1, 5% SL = 3.84

Moreover by relating the two financial measures it was found that the companies showing a significant trend in size albeit positive or negative, were also the larger ones in their respective markets. (see table 8).

SIZE	Mean Size Score Above median	Mean Size Score Below median	TOTAL
Significant trend	6	2	8
Not significant trend	2	6	8
TOTAL	8	8	16

TABLE 8

($\chi^2 = 4.0$, d.f. = 1, 5% SL = 3.84)

It would therefore appear that the companies which were using a more formal system of planning and audit were those which had maintained a steady growth over the time period studied and tended to be larger than average in size. But how far did this relationship go? Table 9 lists those companies showing a significant trend in size ranked by the slope of the trend line. Table 10 shows the rest of the sample ranked by relative volatility, this being measured by the standard deviation of the size scores.

Significant Trends

	Trend Rank	System Rank
AA	5	9
AM	5	5
B	1	3
C	7	4
G	3	6.5
I	8	8
L	5	6.5
RJ	9	2
S	2	1

TABLE 9

(ρ = 0.22, 5% SL = 0.6)

Not Significant Trends

	Variability Rank	System Rank
BE	9.5	2
BR	9.5	2
CK	3.5	9.5
CD	3.5	9.5
FV	1	4.5
FP	5.5	11
ME	11	6
QK	7.5	8
QS	7.5	4.5
R	5.5	2
M	2	7

TABLE 10

(ρ = -0.36, 5% SL = 0·481)

In each case, no apparent relationship exists between the relative position of companies in the ranking of planning systems, and the trend ranking.

Although companies with a significant trend in size do tend to use more formal systems, the degree of formality is not related to the rate of growth in size of the company, or to the degree of variability in relative size.

Taking one further aspect, that of the relative importance of each facet of the system, the role of objectives appeared to be prime both in the normal planning system and in the preacquisition internal audit. This would suggest that whilst companies are mixed in their use of other aspects of the systems, only the larger, more stable ones have recognised the importance and value of identifying and monitoring corporate direction as specified in prime objectives.

3.2.2 When conducting a similar series of tests using the criterion of profitability, results proved to be very different. Relative profits and trend in profits were not matched (χ^2 = 2.29, d.f. = 1, 5% SL = 3.84); nor were those companies with either a significant trend in profitability, whether positive or negative, (χ^2 = 0.2, d.f. = 1, 5% SL = 3.84) nor a high relative profitability (ρ = 0.07. 5% SL = 0.377) - those which tended to use the more formal systems. In other words, if profitability is the criterion, planning does not seem to pay.

THE BID

3.3 When examining the relationships between the size and profitability of the acquirer, and the methods of approach and payment at the time of the bid, it was found that

the larger companies with the formal systems were those which tended to pay a premium above the net asset value of the victim firm, the reverse being the case for the smaller firm (χ^2 = 4.03, d.f. = 1, 5% SL = 3.84). This is consistent with the findings in section 2.8 of this chapter. As in previous analysis, profitability did not appear to play any large part, no significant relationship being found with the method of payment or the relative cost of the acquisition.

POST-ACQUISITION ACTION

3.4 When analysing the amount of change which took place within the victim firm post acquisition, neither profitability nor size appeared to play any part [significant trend in size: significant trend in profitability: $\chi^2 = -0$, d.f. = 1, 5% SL = 3.84: mean size: $\rho = -0.1$, 5% SL = 0.377, mean profitability: $\rho = 0.37$, 5% SL = 0.377]. This is consistent with previous results and thus contributes further to the view that a lack of awareness of potential problems is universal and is not a prerogative of the smaller, less profitable or more informal companies.

THE INDIVIDUAL SECTIONS

4.1 This section is concerned with an analysis of the approach taken, across companies, in the constituent parts of each section. Are companies more interested in objectives than in evaluating strengths and weakness within the planning system? Is this reflected in the pre-acquisition audit? Where is post-acquisition action found to be most necessary?

THE PLANNING SYSTEM

4.2 Table 11 shows the relative scores for each of the five facets of the planning system as agreed by the executives interviewed. The system of scoring is that which was described at the beginning of this chapter namely -

Formal/Regular	-	3
Informal/Irregular	-	2
No System	-	1
No Consensus	-	0

	Formal	Informal	No Consensus	Regular	Irregular	No Consensus	No System	Score
Objectives	8	1	9	9	0	9	2	55
Constraints	6	2	10	7	1	10	2	47
Strengths & weaknesses	6	4	5	6	2	7	5	53
Product/ market strategy	8	2	7	10	0	7	3	61
Control systems	19	0	1	20	0	0	0	117
MEDIAN	8	2	7	9	0	7	2	

TABLE 11

Two major points arise from these results -

1) The very low scores in the informal, irregular and no system columns and the relatively high scores in each of the other columns, indicate an apparent sharp distinction. It would

appear that companies use either an aspect of the planning system on a formal regular basis, or they cannot agree whether a particular facet is used, or on what basis. It could be argued that the high lack of consensus amongst executives hides an embryonic informal/irregular system. This may indeed be the case in some companies, but it must be emphasised that a system which is not perceived to exist by a majority of the senior executives of the company can hardly be described as a "corporate" system - this is what the researcher is attempting to identify. The substantial lack of agreement amongst executives can be interpreted in two ways. Either the system in operation has not been sufficiently clearly defined, or, no system exists and executives are unwilling to admit the fact to an outsider. In order to probe these questions, the nature of the disagreement will be examined later in this chapter and in particular, the role which the chief executive appears to take in defining corporate direction.

2) All companies used some form of financial budgetary control system, the systems varying widely in complexity and value. However, for each of the other categories, less than half the companies interviewed appeared to consider that they were important enough to warrant regular monitoring or discussion. These are the less tangible and thus more difficult features of the planning system. Although all planning facets score approximately the same, it is interesting to note that of the four, the monitoring of product/market strategy was a more regular feature of the systems described than the monitoring of environmental factors. These results do not conflict with previous analysis where only the larger companies appeared to view the setting of prime objectives as an integral part of the planning process.

4.3 Almost all executives felt that the type of system which formally and regularly monitored the four areas of prime objectives, the external environment, corporate strengths and weaknesses, and product/market strategy, was of great value and should be used by their own company. However, at the same time, they felt that the system which they perceived to exist was the right one for their company "at the time discussed". For many executives, the approach was new and they needed time to absorb the new techniques and ideas - this was not a "mechanical system to be introduced over-night."

THE AUDIT

4.4 Table 12 shows the relative importance of each of the prime areas of study prior to the decision to acquire.

	YES	NO	NO CONSENSUS
Concept of the Business	16	1	3
Evaluate corporate objectives	10	3	7
Evaluate strengths and weaknesses	10	2	8
Seek Synergy	10	6	4

TABLE 12

Consistent with the recognition of the need to identify corporate direction, companies discussed their "concept of the business" in 80% of the acquisitions under analysis. In some cases, however, particularly where a single company was being considered, the researcher was given the impression that the definition of the nature of the business was a rationalisation of the decision to acquire. This is not to say that the final result was necessarily the wrong one - opportunities which were not anticipated and which may substantially change the nature of the business do arise from time to time.

4.4.1 The lack of agreement on the questions concerning corporate objectives, and those on strengths and weaknesses, is of the same order as in the previous section raising the question of consistency. For example, did those companies which had a regular system for evaluating strengths and weaknesses use it at the time of the acquisition? Table 13 shows the data from table 12 re-arranged in order to examine this question. It must again be emphasised that "no consensus" does not imply no system, but rather no agreement amongst executives.

	Objectives		Strengths and Weaknesses	
	Planning System	Audit	Planning System	Audit
AA	X	X	INF. X	X
AM	X	YES	INF. IRR.	YES
B	FOR REG	YES	FOR REG	YES
BE	FOR REG	YES	FOR REG	YES
BR	FOR REG	YES	FOR REG	YES
CK	X	X	NO SYSTEM	X
CD	X	X	NO SYSTEM	X
C	INF REG	X	INF REG	X
FV	X	NO	X IRR.	X
FP	NO SYSTEM	NO	NO SYSTEM	NO
G	FOR REG.	YES	X	YES
I	FOR REG.	X	NO SYSTEM	X
L	X	YES	X	YES
ME	X	X	FOR X	YES
M	NO SYSTEM	NO	NO SYSTEM	NO
QK	X	X	X	X
QS	X	X	X	X
RJ	FOR REG.	YES	INF. X	YES
R	FOR REG.	YES	FOR REG.	YES
S	FOR REG	YES	FOR REG.	YES

TABLE 13

Taking each of the sections in turn:

Objectives: In 15 of the acquisitions discussed, consistency in answers is observed, consistency being defined by the circled results in table 14.

OBJECTIVES	Audit		
Planning System	No consensus	No	Yes
No consensus	(6)	1	2
No system	0	(2)	0
System*	2	0	(7)

TABLE 14

* including informal systems.

The two cases where executives could not agree on the type of planning system but did agree that objectives had been discussed at the time of acquisition, were situations where unexpected opportunities had arisen: in the one case an acquisition, and in the other a merging of interests. These changed the nature of the companies involved so much that executives felt the need to use otherwise unfamiliar tools of evaluation. This need is also seen in the other two sections

STRENGTHS AND WEAKNESSES

4.4.2 Although there is less consistency here than in the previous section, in half the acquisitions discussed, executives did agree that an analysis of corporate strengths and weaknesses had taken place. Also, in eight of the cases, this was perceived to be a normal part of the planning system, (see table 15).

Planning System	Audit		
	No Consensus	No	Yes
No consensus	(2)	0	2
No system	3	(2)	0
System	3	0	(8)

TABLE 15

In those cases where a system did exist but was not perceived to have been used, either the system itself was very unstructured (two companies) or the initial reasons for discussing a merging of interests were perceived to be so great that any other considerations were minor (one company).

SYNERGY

4.4.3 Many executives felt that the search for synergy in acquisition was a luxury that companies could not always afford. It must be noted that this question probed beyond the problem of finding a company which, on the surface, satisfied requirements as outlined by the initial reasons for considering acquisition. Thus in 3 of the 6 cases where this question was not discussed at all, the acquisitions were felt to be too small to warrant it, and in the other 3 cases, the companies had not selected a short-list but were confronted with only one possible victim.

LEVELS OF SATISFACTION

4.4.4 Although in a large number of cases executives agreed that discussion had taken place, it did not necessarily imply agreement as to the final outcome. Nevertheless, all felt that it had been a useful exercise in that possible future strategies had been examined. In almost all cases where full discussion had not taken place, executives felt that whilst the final decision may not have been changed as a result of internal analysis, a fuller understanding of the situation by all would have resulted - this could only have been of value. In only one company did executives positively feel that it would have been of no use, this being a company which had itself been newly formed as a result of a major acquisition, and where the particular acquisition discussed was relatively small. Whilst it is possible that in some cases executives were paying lip-service to the concept of evaluating corporate strategy as defined in this thesis, the evidence does suggest a perceived need for more discussion amongst Board members as to the nature of the future direction of their company.

THE BID

4.5 It is interesting to note that as one moves from left to right on table 1 (the stages of the acquisition process), the level of agreement improves substantially. It could be argued that this is because later events are fresher in the minds of executives than those of pre-acquisition evaluation. Whilst difficult to refute, this suggestion fails to emphasise that lack of consensus is also due to lack of communication and discussion in areas which executives find difficult, particularly when outside pressures to acquire are great and emotions run high - it is often easier to do something rather than think about it. Thus substantial agreement exists on the nature of the bid, 'no consensus' tending to arise when executives had limited financial knowledge and were not involved in negotiations.

4.5.1 As described earlier, various methods of payment were used according to the needs of the acquirer and the acquired. This is seen in table 16.

Method	Number
Cash	6
Shares	1
Loan Stock	1
Cash and Shares	4
Cash and Loan Stock	1
Shares and Loan Stock	4
TOTAL	20

TABLE 16

4.5.2 Table 17 shows the relative price paid in each aquisition as perceived by the executives interviewed.

	Pre-Bid Price	Net Assets	Maximum Price
Exceeded	6	7	2
Not Exceeded	2	6	12
No consensus	2	5	4
Not applicable	10	2	2

TABLE 17

Although a premium was paid over pre-bid price and net asset value, in a number of cases it was to be expected in situations where the prime-mover was the eventual acquirer.

POST-ACQUISITION ACTION

4.6 Table 18 shows the amount of change which was deemed necessary post-acquisition - the scoring system is that used in table 1.

SCORE	NUMBER OF COMPANIES				
	Major change 3	Minor change 2	No change 1	No Consensus 0	Median Score
Organisation Structure	13	4	3	0	3
Management	7	5	8	0	2
Asset Structure	3	7	10	0	1.5
Products	2	5	13	0	1
Marketing	6	5	9	0	2
Production*	4	2	9	0	1
Control	15	4	0	1	3

TABLE 18

* not applicable in 5 acquisitions.

Thus it was usually necessary to make major changes in the organisation structure of the acquired company (score = 3) and in the control systems (score = 3) which had been used. The asset structure, products and production (scores 1.5, 1, 1) often the original reasons for acquisition, were left alone whilst minor changes were made - management and marketing. (scores 2, 2).

4.6.1 Section 2.10 describes the extent to which post-acquisition action was perceived necessary prior to a final decision to acquire. Were these the areas where major changes took place? Table 19 relates the two questions.

		Degree of Change		
		Major	Minor	No Change
Organisation Structure	Planned	6	2	2
	Not planned	4	1	0
	No consensus	3	1	1
Management	Planned	4	3	7
	Not planned	2	1	0
	No consensus	1	1	0
Asset Structure	Planned	2	3	8
	Not planned	0	1	0
	No consensus	1	3	2
Products	Planned	2	5	12
	Not planned	0	0	0
	No consensus	0	0	1
Marketing	Planned	6	4	9
	Not planned	0	0	0
	No consensus	0	1	0
Production	Planned	2	2	8
	Not planned	1	0	1
	No consensus	1	0	0
Control Systems	Planned	11	4	0
	Not planned	1	0	0
	No consensus	3	0	0

TABLE 19

Again the future plans for products, marketing and production, whether major or minor change or no change at all, appear to have been well defined and understood by all executives. In the other areas with the exception of control, approximately half the changes which eventually took place either had not been anticipated or had not been adequately discussed and agreed upon. From discussions with executives, the researcher formed the impression that they had not always fully understood the likely impact of an acquisition upon the acquiring firm. This was particularly so when the two managements concerned were asked to co-operate in bringing the acquired company into line.

AN ANALYSIS OF THE AREAS OF DISAGREEMENT

5.1 As already observed, the level of agreement amongst executives increases when moving from left to right in table 1, - i.e, forward in time. This section of the analysis concerns those areas where a lack of consensus is high - Sections 1, 2 and 3, the pre-acquisition procedure.

AREAS OF DISAGREEMENT

5.2 The answers of each executive as to the nature of the planning system were examined and compared and the areas under dispute were highlighted. Was the disagreement a function of the degree of formality and regularity of an existing system, or was it a question as to whether a system existed at all? Table 20 shows the results.

	OBJECTIVES	CONSTRAINTS	STRENGTHS AND WEAKNESSES	PRODUCT/ MARKET STRATEGY	CONTROL SYSTEMS
AA	SYSTEM	SYSTEM	SYSTEM	FORMALITY REGULARITY	–
AM	SYSTEM	SYSTEM	–	– REGULARITY	–
B	–	–	–	FORMALITY REGULARITY	FORMALITY
CK	SYSTEM	SYSTEM	–	–	–
CD	SYSTEM	SYSTEM	–	–	–
FV	SYSTEM	FORMALITY REGULARITY	FORMALITY –	–	–
FP	–	–	–	–	–
G	–	FORMALITY REGULARITY	SYSTEM	FORMALITY REGULARITY	–
I	SYSTEM	SYSTEM	SYSTEM	SYSTEM	–
L				–	–
ME	SYSTEM	SYSTEM	– REGULARITY	SYSTEM	–
M	–	–	–	SYSTEM	–
QK	SYSTEM	SYSTEM	SYSTEM	–	–
QS	SYSTEM	SYSTEM	SYSTEM	–	–
RJ	–	–	– REGULARITY	FORMALITY	–

TABLE 20

In the case of company I, the responses of observer 3 were included, although he was not employed by the company at the time in question and thus had not been included in previous analysis. He fulfilled such an apparently vital role in the planning process, that of the corporate planner, that any lack of awareness on his part of previous procedures indicated either that the procedures did not exist, or that they had not been communicated to him. It is this question of lack of communication which is of interest here. Of the 100 identities studied (20 acquisitions X 5 planning procedures), disagreement existed in 39. Of these, 64% were disagreements as to whether or not a system existed at all. Further analysis indicated that these results cluster around the areas of objective-setting and monitoring of the environment. Thus although previous analysis has highlighted objectives as being of prime importance in the planning process as illustrated in both their relationship to financial performance and in executives individual responses, it would appear that many companies have been unable to set up satisfactory procedures. This does not mean that these areas are ignored (if this were the case, executives would agree that no system existed) but rather that some executives, being aware of the need for such methods, have been monitoring objectives and constraints individually without discussing or formalising results for so long, that they have become unable to separate the 'corporate' system from their own.

DISAGREEMENT AND EXECUTIVE FUNCTION

5.3 For 17 of the acquisitions discussed, the chief executive of the acquiring firm was interviewed by the researcher. Were his responses echoed by his directors? Was he the one who led the planning process within the company? In the case of pre-acquisition procedure, complete agreement with his responses was seen in 74% of the cases examined, but in only 57% in the case of the normal planning process. Where lack of consensus occurred, some agreement with the chief executive was observed to exist in 16% of the cases. Situations where either total disagreement existed, or, where responses of the chief executive were in conflict with those of his directors, were seen in 24% of the cases for the planning process and in 13% for pre-acquisition procedure. It would therefore appear that whatever the form of system in operation, the chief executive is in control in a majority of the cases. However, he does not appear to communicate the planning procedures which he uses very well - some confusion arose in 43% of the cases discussed. When a specific problem, such as the question of acquisition arose, executives seemed to have been more aware of the questions probed - some confusion arose in only 27% of the cases discussed

INDIVIDUAL CHARACTERISTICS

6.0 The next stage of the analysis probes the pre-acquisition procedure in more detail and identifies

1. the nature of the acquisition "trigger".
2. the areas in which objectives were specified.
3. perceived areas of corporate strength and weakness.
4. pre-acquisition criteria.

Executives were asked to describe each of the above both as they perceived it to be at the time, and as they felt it should have been with the benefit of hindsight. In all later analysis the former is identified as "actual" and the latter as "ideal". Whereas it is recognised by the researcher that the answers to all these questions are related to the individual company, it is nevertheless felt useful to highligh both common characteristics and problems.

One of the major strengths of the methodology adopted for this thesis is the use of multiple interviews, since additional to individual responses to the questions asked, the extent to which executives agree is a strong indication of the cohesiveness of the corporate decision-making process. Thus data will be presented in three forms -

a. that which executives stated to exist.
b. that which executives agreed existed.
c. the levels of agreement amongst executives.

The consensus tests described in the methodology section were used to define the second category.

ACQUISITION TRIGGER

6.1 Executives were asked to describe the original reason for the company to consider an acquisition: their answers are given in detail in the individual company reports (see appendix). Table 21 summarises the different areas in which these 'acquisition triggers' were identified. It must however be noted that although, for example

	AA	AM	B	BE	BR	CK	CD	C	FV	FP	G	I	L	ME	M	QK	QS	RJ	R	S	Total
Liquidity						✓	✓										✓				3
Profitability				✓	✓		✓			✓		✓									5
Gearing				✓	✓													✓			3
P/E or EPs				✓	✓																2
Turnover/ Growth							✓					✓				✓	✓				4
Products												✓				✓		✓	✓		4
Markets	✓			✓	✓		✓	✓		✓	✓	✓			✓		✓	✓		✓	12
Customers																				✓	1
Market size/ growth				✓	✓								✓					✓		✓	5
Market share						✓	✓				✓			✓							4
Channels/ outlets						✓	✓				✓			✓		✓	✓				6
Competitors									✓		✓								✓		3
Raw materials																✓			✓		2
Labour																					0
Processes/ plant															✓			✓	✓		3
Distribution																					0
Research								✓													2
Management	✓		✓			✓	✓			✓							✓				7
Image																					0
Legal									✓												1
Approach from third party	✓	✓	✓				✓					✓	✓		✓				✓		8

TABLE 21 - Trigger, stated reasons

TRIGGER - Consensus Replies

	AA	AM	B	BE	BR	CK	CD	C	FV	FP	G	1	I	ME	M	QK	QS	RI	R	S	No.
Liquidity																					0
Profitability										✓											1
Gearing																					0
P/E or EPs																					0
Products												✓		NO CONSENSUS	NO CONSENSUS			✓	NO CONSENSUS		2
Markets										✓		✓									2
Customers																				✓	1
Market size/ growth				✓	✓															✓	3
Market share						✓					✓										2
Channels/ outlets				✓	✓						✓					✓	✓				5
Competitors											✓										1
Raw Materials																					0
Labour																					0
Processes																					0
Distribution																					0
Research								✓													1
Management			✓			✓	✓			✓											4
Image																					0
Legal									✓												1
Approach from third party	✓	✓	✓										✓								4

TABLE 22 - Trigger, consensus replies

"management" was perceived to be a factor in 7 companies, it was for varying reasons, viz

> "top management transmitted the right atmosphere to the subsidiary companies".
>
> "management was inexperienced in this field".
>
> "lack of specialised expertise".
>
> "too much good management with nothing to do".

The table merely identifies the area, not the specific trigger.

The responses demonstrate an apparent awareness of marketing problems in general, and in particular, the question of the markets in which the companies operate whether being concerned with the need to expand geographically, or the need to lessen reliance upon existing product markets. However, although this awareness of marketing problems is strongly demonstrated by individual executives, it is not apparent when answers are compared - the number of companies in which this was perceived to be a factor dropping from 12 to 3 (see table 23), i.e. when consensus tests were applied.

	Stated	Agreed	Agreed / Stated.
Liquidity	3	0	0.00
Profitability	5	1	0.20
Gearing	3	0	0.00
P/E or EPS	2	0	0.00
Turnover/growth	4	0	0.00
Products	4	2	0.50
Markets	12	3	0.25
Customers	1	1	1.00
Market size/growth	5	3	0.60
Market share	4	2	0.50
Channels/outlets	6	5	0.83
Competitors	3	2	0.67
Raw materials	2	0	0.00
Labour	0	0	0.00
Processes/plant	3	0	0.00
Distribution	0	0	0.00
Research	2	1	0.50
Management	7	4	0.57
Image	0	0	0.00
Legal	1	1	1.00
Approach from third party	8	4	0.50

TABLE 23

The substantial erosion in response rates seen when comparing tables 21 and 22 and summarised in table 23 clearly indicates a lack of discussion of problems and communication of solutions within companies. The extent to which this occurs in individual companies will be examined later in this chapter.

Although no particular factor dominates the reasons for considering acquisition, an examination of table 23, summarised in table 24, does suggest variation between the sections.

	Stated	Agreed	Agreed / Stated	Rank
Financial	17	1	0.06	5
Marketing	35	18	0.51	2
Production	7	1	0.14	4
Corporate	8	5	0.62	1
Third Party	8	4	0.50	3

TABLE 24

A number of points are worth comment -

1. The marketing category dominates both the stated and agreed reasons.
2. The highest level of consensus was in the corporate category where the reasons suggested were mainly a function of the corporate management - a factor more likely to impinge directly upon individual executives.
3. The substantial erosion in the financial category indicates a general awareness of such considerations without any specific knowledge.

CORPORATE OBJECTIVES

6.2.1 Table 25 shows the areas in which executives perceived prime objectives to exist within their company at the time of the acquisition discussed.

	AA	AM	B	BE	BR	CK	CD	C	FV	FP	G	I	L	ME	M	QK	QS	RS	R	S	Total
Liquidity				✓	✓						✓		✓								4
Profitability	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	19
Gearing				✓	✓						✓										3
P/E or EPs			✓										✓							✓	3
Size	✓	✓	✓	✓	✓						✓		✓								7
Turnover						✓	✓													✓	3
Penetrations	✓	✓		✓	✓	✓	✓	NOT APPLICABLE			✓		✓		✓			✓	✓		11
Product development		✓		✓	✓						✓		✓		✓			✓	✓	✓	9
Market development		✓		✓	✓								✓				✓		✓	✓	7
Diversification		✓																			1
Price																					0
Customer service				✓	✓						✓								✓		4
Capacity utilisation																					0
Level production																					0
Costs																					0
Industrial relations			✓																		1
Distribution																✓					1
Company image			✓	✓	✓						✓					✓	✓		✓		7
Community service				✓	✓						✓										3
Productivity		✓		✓	✓						✓		✓							✓	6
Others	✓		✓	✓	✓						✓									✓	6

TABLE 25 – Stated Obj

	AA	AM	B	BE	BR	CK	CD	C	FV	FP	G	I	L	ME	M	QK	QS	RJ	R	S	Total
Liquidity																					
Profitability		✓	✓	✓	✓				✓	✓	✓		✓			✓	✓	✓	✓	✓	13
Gearing																					
P/E or EPs																					
Size																					
Turnover	NO CONSENSUS					NO CONSENSUS	NO CONSENSUS	NOT APPLICABLE				NO CONSENSUS		NO CONSENSUS	NO CONSENSUS						
Penetration											✓										1
Product development											✓		✓								1
Market development													✓								1
Diversification																					
Price																					
Customer Service																					
Capacity Utilisation																					
Level production																					
Costs																					
Industrial relations																					
Distribution																					
Company Image																					
Community Service																					
Productivity											✓										1
Other			✓																		1

TABLE 26 - Consensus Objectives

These results show that executives perceived a number of prime objectives to be specified within their company, the objectives tending to cluster within the marketing or financial categories. This highlights two points which the researcher found particularly surprising -

1. although a majority agreed that profitability was "the name of the game", few could specify or quantify the actual objective.
2. although all except one were quoted companies, and despite the fact that a share exchange was always contemplated if not necessarily used, there was little apparent interest in the effect of corporate decisions on either price/earnings ratio or earnings per share.

Table 26 shows the areas in which objectives were specified after a test of consensus was applied. The results are little short of horrifying, particularly when it is noted that executives were not asked to specify or quanitify any objectives, merely to identify objective areas. It highlights the view that executives tend to follow their own individual paths rather than those which have been discussed and agreed within the boardroom.

The only two consistent points between the two tables are the emphasis on profitability as an objective and the apparent total lack of interest in production factors. Little change was observed when executives were asked to comment upon their company's objectives with the benefit of hindsight. Although almost all executives felt that objectives were extremely important, and that their company should have made more effort in this field, there was still substantial erosion from those areas which were felt to be important by individuals and those upon which they could agree. Table 27 summarises the results.

	Stated	Agreed
Liquidity	5	1
Profitability	19	18
Gearing	6	0
P/E or EPS	7	1
Size	7	0
Turnover	4	0
Penetration	13	1
Product development	16	2
Market development	11	2
Diversification	8	0
Price	0	0
Customer Service	2	0
Capacity Utilisation	0	0
Level production	0	0
Costs	0	0
Industrial relations	4	0
Distribution	2	1
Company image	11	0
Community service	1	0
Productivity	7	2
Others	7	1

TABLE 27 - Ideal Objectives

It is agreed by almost all those involved in business that the importance of profitability is prime since without it a company cannot survive indefinitely. However, there are two schools of thought as to its role as an objective - one takes the view that profitability is the only possible prime objective, all other factors being the means by which it is achieved, the other considers that objectives should be specified in marketing, production and corporate trends, profitability being a constraint upon their achievement. Whilst executives voiced both of these points of view, no common agreement existed within any company. Indeed, many straddled both feeling the need for profitability and other objectives to be specified. Thus it is not necessarily the dominance of profitability as a prime objective which is disturbing, but rather the substantial lack of agreement amongst executives as to the stance which their company both adopts and should adopt on this matter.

CORPORATE STRENGTHS AND WEAKNESSES

6.3.1 Tables 28 and 30 show the areas in which executives perceived corporate strengths and weaknesses to have been identified at the time of the acquisitions discussed.

Tables 29 and 31 show the consensus replies.

	AA	AM	B	BE	BR	CK	CD	C	FV	FP	G	I	L	ME	M	QK	QS	RJ	R	S	Total
Liquidity						✓	✓				✓		✓								4
Profitability	✓	✓									✓		✓	✓							5
Gearing			✓	✓	✓						✓										4
P/E or EPs			✓								✓			✓							2
Size			✓																		1
Products	✓	✓	✓			✓	✓			NO ANALYSIS		NONE			NO ANALYSIS						5
Markets			✓								✓		✓								4
Customers	✓	✓																✓			4
Market share																					0
Channels				✓	✓								✓								3
Marketing skills																					0
Market size																					0
Raw materials				✓	✓																2
Labour																			✓		1
Processes/ plant			✓			✓	✓				✓		✓					✓		✓	7
Distribution			✓			✓	✓				✓		✓								5
Research								✓											✓	✓	3
Management	✓	✓	✓			✓	✓	✓	✓		✓		✓	✓		✓	✓	✓	✓	✓	15
Image	✓	✓		✓	✓		✓	✓						✓				✓	✓		9
Organisation Structure									✓												1
Control systems											✓			✓						✓	3
Other			✓																		1

TABLE 28 - Corporate Strengths : stated

	AA	AM	B	BE	BR	CK	CD	C	FV	FP	G	I	L	ME	M	QK	QS	RJ	R	S	Total
Liquidity																					0
Profitability											✓										1
Gearing				✓	✓						✓										3
P/E or EPs																					1
Size																					0
Products			✓			NO CONSENSUS	NO CONSENSUS	NOT APPLICABLE	NO CONSENSUS	NO CONSENSUS		NO CONSENSUS			NO CONSENSUS				NO CONSENSUS		1
Markets											✓										1
Customers																		✓			1
Market share																					0
Channels				✓	✓																2
Marketing skills																					0
Market size																					0
Raw materials																					0
Labour																					0
Processes/ Plant											✓		✓					✓		✓	4
Distribution																					0
Research																				✓	1
Management	✓	✓									✓		✓	✓		✓	✓	✓		✓	9
Image				✓	✓																2
Organisation Structure																					0
Control Systems																					0
Other			✓																		1

TABLE 29 - Corporate Strengths : Agreed

	AA	AM	B	BE	BR	CK	CD	C	FV	FP	G	I	L	ME	M	QK	QS	RJ	R	S	Total
Liquidity																		✓			1
Profitability				✓	✓													✓			3
Gearing													✓			✓	✓	✓			4
P/E or EPs																		✓			1
Size								✓					✓								2
Products			✓				✓		✓	NO ANALYSIS		✓			NO ANALYSIS				✓		5
Markets	✓	✓					✓	✓			✓			✓						✓	7
Customers			✓															✓			2
Market share						✓	✓				✓					✓	✓				5
Channels				✓	✓									✓		✓	✓				5
Marketing skills						✓	✓												✓		3
Market size											✓		✓					✓			3
Raw materials/supplies											✓							✓			1
Labour																					0
Processes/plant																		✓	✓		2
Distribution																			✓		1
Research								✓													1
Management	✓	✓	✓	✓	✓	✓	✓	✓					✓	✓				✓	✓	✓	13
Image	✓	✓																			2
Organisation Structure				✓	✓																2
Control systems				✓	✓	✓	✓												✓		5
Other			✓													✓	✓				3

TABLE 30 - Corporate Weaknesses : Stated

	AA	AM	B	BE	BR	CK	CD	C	FV	FP	G	I	L	ME	M	QK	QS	RS	R	S	Total
Liquidity																					0
Profitability																					0
Gearing																					0
P/E or EPs																					0
Size																					0
Products	NO CONSENSUS	NO CONSENSUS						NOT APPLICABLE	NO CONSENSUS	NO CONSENSUS		NO CONSENSUS		NO CONSENSUS	NO CONSENSUS	NO CONSENSUS	NO CONSENSUS		NO CONSENSUS		0
Markets											✓										1
Customers																					0
Market share						✓	✓														2
Channels																					0
Marketing skills							✓														1
Market size											✓										1
Raw materials																					0
Labour																					0
Processes/Plant																					0
Distribution																					0
Research																					0
Management			✓	✓	✓		✓						✓					✓		✓	7
Image																					0
Organisation Structure																					0
Control systems																					0

TABLE 31 – Corporate Weaknesses : Agreed

Yet again disagreement existed between directors, in this instance as to areas of corporate strengths and weakness. These results certainly negate previous statements by directors that formal, written analyses were conducted and agreed upon for the researcher did not request detailed analysis, but merely the general area. However, the one factor which withstands the test of consensus better than any other is that of "management". The atmosphere which it creates within the company, the skills which it both possesses and lacks, its aspirations and values are seen by many executives to have been of great importance in the acquisition decision. This point is further emphasised when executives were asked to comment on their perception of the strengths and weaknesses analysis with the benefit of hindsight. Table 32 summarises the results.

	Strengths		Weaknesses	
	Stated	Agreed	Stated	Agreed
Liquidity	6	0	2	0
Profitability	4	1	3	0
Gearing	8	3	5	0
P/E or EPS	4	1	1	0
Size	1	0	2	0
Products	8	5	7	2
Markets	8	2	9	3
Customers	5	0	2	0
Market Share	0	0	6	2
Channels/outlets	4	2	5	1
Marketing skills	4	0	4	1
Market size	0	0	3	0
Raw materials/suppliers	0	0	2	0
Labour	9	0	0	0
Process/plant	1	5	2	0
Distribution	5	0	1	0
Research	2	1	0	0
Management	17	10	20	10
Image	9	2	3	0
Organisation Structure	1	1	2	0
Control Systems	6	0	7	1
Other	5	1	6	0

TABLE 32 - Ideal Strengths and weaknesses.

6.3.2 In 15 of the 19 cases considered, it was agreed by executives that "management" should have been recognised as either a major company strength or weakness or both, and, as will be seen later, this contributed substantially to the eventual outcome of the venture. Additionally, in the remaining four cases, "management" was mentioned by some executives but not agreed by a majority. Yet again table 32 displays the same lamentable lack of agreement in the boardroom, a remarkable result considering that executives had had ample time to reflect upon the acquisition and discuss their performance both before and after the final decision.

6.3.3 At this stage the researcher felt it important to determine whether the category of management plus the other 'corporate' factors totally dominated the results. Table 33 shows the results summarised by category. Note that 'stated' denotes the number of companies in which an area was mentioned and 'agreed' the number of companies in which there was consensus.

	Strengths		Weaknesses	
ACTUAL	Stated	Agreed	Stated	Agreed
Financial	16	5	11	0
Marketing	16	5	30	5
Production	18	5	5	0
Corporate	29	12	25	7
IDEAL				
Financial	23	5	12	0
Marketing	29	9	36	9
Production	17	6	5	0
Corporate	38	14	38	11

TABLE 33

In each of the above cases pairs of results were tested to compare the relative distribution - for example, was the dominance of the corporate category displayed in actual stated strengths maintained when a test of consensus was applied? Taking each set of results in turn:-

Actual v. Ideal:

Strengths, stated: $\chi^2 = 2.94$

Weaknesses, stated: $\chi^2 = 0.91$

Strengths, agreed: $\chi^2 = 0.59$

Weaknesses, agreed: $\chi^2 = 0.03$

Degrees of freedom = 3, 5% SL = 7.82

In all cases, there is no significant difference between the emphasis shown in actual and ideal responses. Thus, although in all cases executives felt that more strengths and weaknesses should have been recognised than were perceived at the time, the relative emphasis in each category was maintained. The categories of corporate and marketing remained dominant.

Stated v. Agreed:

Strengths, actual: $\chi^2 = 0.65$

Weaknesses, actual: $\chi^2 = 6.06$

Strengths, ideal: $\chi^2 = 1.06$

Weaknesses, ideal: $\chi^2 = 2.96$

Weaknesses, ideal:
Degrees of freedom = 3, 5% SL = 7.82

Here again, there is no significant difference between the distribution of stated and agreed responses which suggests that the lack of agreement amongst executives is common to all categories. However many or however few factors were mentioned within a category or whatever their nature, the ability of executives to agree in their responses did not change significantly.

Strengths v. Weaknesses

Stated, actual: $\chi^2 = 12.53$

Agreed, actual: $\chi^2 = 10.12$

Stated, ideal: $\chi^2 = 9.00$

Agreed, ideal: $\chi^2 = 5.11$

Degrees of freedom = 3, 5% SL = 7.82

Three of the above four tests proved to be significant, indicating a shift in emphasis between strengths and weaknesses. On examining table 28, this is explained by a more even spread of responses for strengths than for weaknesses where the distinction between the corporate and marketing categories and the financial and production categories, is more pronounced.

It must be noted here that the apparent lack of strength or weakness in the financial and production categories is not necessarily a reflection of the true situation. All the data was collected from the responses of executives involved in the acquisition and thus reflects those factors which they felt were important. No production directors were interviewed as in many cases the Chief Executive felt that they had not been sufficiently involved in the acquisition decision. Many of the remaining directors interviewed commented upon their lack of understanding or knowledge of the financial function. Thus the results may be a result of the lack of importance which those interviewed attached to production, and their limited skill in the financial area.

ACQUISITION CRITERIA

6.4 Executives perceived a large number of areas to have been examined in detail prior to a final decision to acquire, and except for a few changes in four of the acquisitions, all felt that their perception had been correct with the benefit of hindsight. Again however, whatever analysis did take place was made insufficiently explicit within the boardroom for substantial erosion took place between those criteria stated, and those upon which executives agreed (see tables 34 and 35).

On examining the two tables, financial and production considerations appear to be given more importance than had been observed previously, whilst "management", although mentioned in 16 cases, could only be agreed upon in 6. It is interesting that many executives did not feel that it was necessary to examine either their own ability to cope with what in most cases was a major addition to their own work-load, or the skills and weaknesses of the executives of the victim firm. This is particularly surprising in view of the previous apparent pre-occupation with their own abilities. In the event, some executives commented that a major problem in running the new addition was the difference in style and the lack of sufficient sympathy between the two groups. However, they also felt that this would not have been recognised prior to the acquisition. The researcher is of the opinion that this is sometimes a rationalisation. When executives have reached this stage in the process, the emotional drive is greater than the logical one and executives tend to minimise problem areas.

On examining the separate categories, no significant change in emphasis was seen when comparing stated and agreed results, confusion being common to all. (See table 36).

	AA	AM	B	BE	BR	CK	CD	C	FV	FP	G	I	L	ME	M	QK	QS	RJ	R	S	Total
Liquidity																					0
Profitability	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓		✓		✓	✓	✓		✓	15
Gearing													✓						✓		2
P/E or EPs	✓	✓	✓						✓				✓	✓		✓	✓	✓		✓	10
Size			✓						✓			✓	✓	✓		✓	✓				8
Cost							✓		✓	✓	✓				✓	✓			✓	✓	7
Products	✓	✓	✓			✓	✓		✓		✓	✓	✓				✓	✓	✓	✓	13
Markets	✓	✓	✓			✓	✓				✓		✓		✓		✓	✓	✓	✓	12
Customers			✓			✓							✓					✓			4
Market size/ growth	✓	✓		✓	✓	✓	✓														6
Market share	✓	✓				✓	✓		✓						✓				✓		7
Channels/ outlets				✓	✓		✓				✓			✓		✓	✓	✓			8
Competitors																				✓	1
Raw materials						✓	✓				✓		✓		✓			✓	✓		7
Labour	✓	✓				✓															3
Processes/ plant	✓	✓	✓							✓		✓	✓		✓			✓			8
Distribution						✓	✓												✓		3
Research/ technology																			✓	✓	2
Management	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	16
Image	✓	✓		✓	✓										✓						5
Legal									✓												1
Other			✓	✓	✓				✓			✓		✓	✓	✓	✓				9

TABLE 34 - Acquisition criteria : stated

	AA	AM	B	BE	BR	CK	CD	C	FV	FP	G	I	L	ME	M	QK	QS	RS	R	S	Total
Liquidity																					0
Profitability	✓	✓	✓	✓	✓	✓	✓													✓	9
Gearing																					0
P/E or EPs	✓	✓																✓		✓	4
Size											✓	✓				✓					3
Cost																					0
Products	✓	✓						NOT APPLICABLE	NOT APPLICABLE		✓	✓	✓					✓	✓	✓	8
Markets	✓		✓								✓		✓								4
Customers																					0
Market size/ growth				✓	✓																2
Market share						✓															1
Channels/ outlets				✓	✓									✓		✓	✓				5
Competitors																					0
Raw mater- ials						✓							✓		✓						3
Labour																					0
Processes/ plant			✓										✓					✓			3
Distribution																			✓		1
Research/ technology																			✓	✓	2
Management	✓									✓	✓			✓		✓				✓	6
Image	✓																				1
Legal																					0
Other																					0

TABLE 35 - Acquisition Criteria : agreed

	Stated	Agreed
Financial	42	16
Marketing	51	20
Production	23	9
Corporate	31	7

TABLE 36

$\chi^2 = 1.54$, d.f. = 3, 5% SL = 7.82

Here financial and marketing considerations appear to be more frequent; the effect on company profitability, the quality and range of products and the markets served contributing most to this results.

SUMMARY OF PRE-ACQUISITION PROCEDURE

6.5 There appears to be a common logic running through the factors which are considered at each stage. Table 37 summarises the total results of each stage and table 38 ranks the categories. As there was no significant difference between stated and agreed, or actual and ideal results, only consensus totals are shown.

TABLE 37	Trigger	Objectives	Strengths	Weaknesses	Criteria
Financial	1	13	5	0	16
Marketing	18	3	5	5	20
Production	1	0	5	0	9
Corporate	5	2	12	7	7

TABLE 38	Trigger	Objectives	Strengths	Weaknesses	Criteria
Financial	4	1	3	3.5	2
Marketing	1	2	3	2	1
Production	3	4	3	3.5	3
Corporate	2	3	1	1	4

(Kendall's coefficient of concordance = 0.25, S = 31.5, 5% SL = 62.6)

Analysis of table 38 shows a singificant difference amongst the ranking of categories through each of the five sections and thus indicates a change in emphasis throughout the procedure. Whilst not confined to any specific area, marketing considerations tended to be the ones which prompted companies to consider possible acquisition. However, these considerations became significantly subordinate to profitability in the definition of prime corporate objectives which suggests that whilst companies recognise problems when they arise, little is done in the way of a positive strategy to pre-empt them - problem avoiders rather than problem solvers. A large number of both company strengths and weaknesses were suggested by executives but few remained after a test of consensus was applied, these being dominated by the various management characteristics. Having conducted an internal audit and have decided to pursue the matter further, executives returned to financial and marketing considerations when making a final decision, the latter now being concentrated upon the nature of the products and markets of the victim firm.

COMPANY PERFORMANCE

The researcher has already made a number of comments in the previous section on the substantial difference between the number of factors mentioned in a section and the number upon which executives agreed. This raises two very important questions -

1. What is the size of the problem within the company?
2. Is the level of agreement reflected in company financial performance?

LEVELS OF CONSENSUS

7.1 Three points are of interest when studying company characteristics -

1. Number of factors stated.
2. Number of factors agreed.
3. The relationship between the above.

The number of factors stated in any one company is of limited value in analysis since it does not take into account either the number of people involved or the number of responses per person. For example -

Factor	Company A		Company B		
	Observer 1	Observer 2	Observer 1	Observer 2	Observer 3
1	✓		✓		
2		✓	✓	✓	✓
3	✓	✓	✓		
4		✓	✓		
5	✓		✓		✓

In both cases, the number stated is five, but for company A, the responses are equally divided whilst observer 1 dominates the results for company B.

Thus in calculating a measure of the level of agreement within a company it was important to weight the number of factors stated by the number of people.

Thus, for Company A:

No. Factors stated = 5

No. Factors agreed = 1

$$\text{Level of consensus} = \frac{2}{6} = 0.33$$

for Company B:

No. Factors stated = 5

No. Factors agreed = 2

$$\text{Level of consensus} = \frac{3 + 2}{8} = 0.625$$

7.1 In order to obtain a first impression of the extent of the entire problem, median values were calculated for each category, the results being summarised in table 39.

ACTUAL	No. stated	No. agreed	Level of consensus
Trigger	3	1	0.57
Objectives	5	1	0.28
Strengths	5	1	0.50
Weaknesses	4	1	0.20
Criteria	9	3	0.53
IDEAL			
Objectives	6	1	0.36
Strengths	5	2	0.50
Weaknesses	4	1	0.40
Criteria	9	3	0.59

TABLE 39

Taken by itself the small number of items upon which executives agreed would not necessarily be surprising since it is quite possible that only a few very major factors were considered at any stage of the procedure, although this would indicate a very narrow view of the perceived problem. However, comparison with the number of items stated to have been considered indicates the existence of a contrary situation. In all cases, the substantial erosion between stated and agreed as shown by the level of consensus which was apparent in earlier analysis is confirmed. The suggestion that the level of agreement amongst executives is a function of time is however not supported here. The one factor which occurred further away in time, the acquisition trigger, is the one upon which executives most frequently agree. They were least able to agree upon the identification of corporate objectives and corporate weaknesses. This again supports the view that little formal analysis of discussion actually takes place within companies, particularly in areas which executives find difficult or where the results are hard to digest - it is always easier to recognise ones strengths than to accept ones weaknesses. However, it is this apparent failure to 'grasp the nettle' which is often the reason for substantial problems arising in companies when a major change, such as an acquisition, takes place.

Perhaps the most surprising part of table 39 is the fact that in all cases the level of agreement improves from actual to ideal. Thus it would appear that executives are much better able to agree on what should have been, rather than that which actually occurred. This is a very strange result and prompts the researcher to ask why exectuves did not act more in unison, since they appear to think in unison. Once again, the answer would appear to be lack of communication - a pre-occupation with day-to-day operational matters which leaves little, if any, time for strategic considerations until almost too late.

7.2 As described in the previous section, variability in the level of agreement amongst executives varied across each of the sections discussed. The question of variability within sections therefore arises. Were executives consistent in their responses? Did they maintain their performance relative to other companies throughout their answers? Table 40 lists the levels of consensus in each category and the results were then ranked in order of magnitude. (Table 41). Where no consensus occurred, items were ranked according to the number of items stated.

	Trigger	Objectives	Strengths	Weaknesses	Criteria
AA	.60	.00	.33	.00	.73
AM	1.00	.25	.33	.00	.46
B	1.00	.50	.36	.40	.50
BE	.50	.15	.86	.33	.75
BR	.50	.15	.86	.33	.75
CK	.83	.00	.00	.40	.47
CD	.25	.00	.00	.67	.25
C	.67	-	-	-	-
FV	.67	1.00	.00	.00	.00
FP	.86	1.00	-	-	.40
G	.86	.55	.75	.71	.83
I	.57	.00	.00	.00	.50
L	.67	.61	.50	.40	.67
ME	.00	.00	.57	.00	.67
M	.00	.00	-	-	.23
QK	.50	.50	1.00	.00	.71
QS	.43	.50	1.00	.00	.36
RJ	.67	.50	.87	.20	.53
R	.00	.28	.00	.00	.54
S	.80	.25	.75	.67	.59

TABLE 40 - Levels of Consensus: Actual

	Trigger	Objectives	Strengths	Weaknesses	Criteria	Composite Ranking
AA	10	14	11.5	12.5	4	10
AM	1.5	10.5	11.5	12.5	14	9
B	1.5	6.5	10	4.5	11.5	4
BE	13	12.5	4.5	7.5	2.5	7.5
BR	13	12.5	4.5	7.5	2.5	7.5
CK	5	16	14.5	4.5	13	12
CD	16	16	13	2.5	17	16
C	-	-	-	-	-	
FV	8	1.5	16	16.5	19	15
FP	3.5	1.5	18.5	18.5	15	13
G	3.5	4	6.5	1	1	1
I	11	18.5	17	16.5	11.5	18
L	8	3	9	6	6.5	2
ME	18.5	18.5	8	15	6.5	17
M	18.5	16	18.5	18.5	18	9
QK	13	6.5	1.5	12.5	5	6
QS	15	6.5	1.5	12.5	16	11
RJ	8	6.5	3	9	10	5
R	17	9	14.5	10	9	14
S	6	10.5	6.5	2.5	8	3

TABLE 41

Kendall's Coefficient of Concordance = 0.38, S = 5421, χ^2 = 34.2, 5% SL = 28.87

NB High rank = high agreement.

From the above analysis, results indicate no significant difference amongst rankings for each category, executives being consistent in their responses such that a high level of agreement upon the nature of the acquisition figure was maintained throughout the analysis; and similarly for low agreement it was thus possible to maintain a composite ranking of all companies. This is shown in column 7 of table 41.

7.3 Was this consistency maintained when executives were asked to comment upon the situation with the benefit of hindsight? Table 42 shows the levels of agreement under 'ideal' circumstances ranked in order of magnitude.

	Objectives	Strengths	Weaknesses	Criteria
AA	15.5	12.5	8.5	6
AM	15.5	12.5	8.5	14
B	5	14	8.5	12
BE	17.5	2	12	3
BR	17.5	2	12	3
CK	9.5	18.5	3	13
CD	9.5	18.5	1.5	16
C	-	-	-	-
FV	12.5	10.5	15.5	19
FP	12.5	16	17	3
G	4	5.5	4	1
I	2	15	5.5	5
L	2	10.5	8.5	8.5
ME	8	9	15.5	8.5
M	19	2	5.5	17
QK	2	5.5	12	7
QS	12.5	5.5	18	15
RJ	6.5	8	14	18
R	12.5	17	19	11
S	6.5	5.5	1.5	10

Kendall's Coefficient of Concordance = 0.28, S = 2524, χ^2= 21.03

TABLE 42

Surprisingly, although previous results had indicated that executives agree more on the pre-acquisition procedure which should have been adopted, this analysis indicates a significant difference in the rankings. Thus consitency is not maintained but where do changes occur? For each category, the ranking for actual and ideal were compared in order to isolate those categories where the variation occurred. Table 43 lists the results.

Category	Spearman's Rho	No. Ranked	Significance Level 5%	Result
Objectives	0.26	19	0.388	Sig.Difference
Strengths	0.59	19	0.388	No.Sig.Difference
Weaknesses	0.51	19	0.388	No Sig.Difference
Criteria	0.76	19	0.388	No Sig.Difference

TABLE 43.

The results show quite clearly that executives change the degree of emphasis from those objectives which are perceived to exist, to those which they perceive should exist. This 'dissatisfaction' failed to exist with regard to the other categories.

FINANCIAL PERFORMANCE

8.1 The analysis to date has identified both varying and common characteristics amongst the companies studied - were these reflected in the relative financial performance of the companies? In each of the five categories the three measures of number stated, number agreed, and level of agreement, were compared with the various financial measures. Where companies were divided into significant and non-significant trends the Chi-squared test was used, and where they were ranked by mean socres the common ranking of companies by level of agreement was compared using Spearman's Rank Correlation Coefficient. The former will be examined first and an example of the calculation is shown below:

For Trigger, number of stated reasons, and significant trend in size -

	Number of stated reasons		Total
	Above median	Below median	
Significant trend	6	3	9
Not significant trend	6	5	11
Total	12	8	20

TABLE 44

Null hypothesis: No relationship between the two measures.

$\chi^2 = 0.29$, degrees of freedom = 1, 5% SL = 3.84

Therefore, accept the null hypothesis that no relationship exists between the number of stated reasons and trend in size.

8.2 SIGNIFICANT TREND - Actual responses

The results in table 45 show only two significant relationships involving the level of agreement upon the acquisition trigger and stability of performance in both size and profitability, as indicated by an identifiable trend.

8.3 MEAN FINANCIAL PERFORMANCE (MEAN SCORES) - Actual responses

Again, only two significant results were obtained - in both cases when comparing the number of agreed reasons with the relative size of the companies. Thus, in the case of both corporate strengths and acquisition criteria, not only was the level of agreement higher than for other categories (median = 0.50 and 0.53 respectively) but also executives in the larger of the sample

Category	Measure	Financial Measure	Chi-squared	Result
TRIGGER	Stated Reasons	Size	0.29	
		Profit	1.64	
	Agreed Reasons	Size	1.82	
		Profit	0.00	
	Consensus Levels	Size	5.06	*
		Profit	7.2	*
OBJECT-IVES	Stated Reasons	Size	1.31	
		Profit	0.55	
	Agreed Reasons	Size	0.25	
		Profit	2.27	
	Consensus Levels	Size	0.33	
		Profit	1.25	
STRENGTHS	Stated Reasons	Size	1.65	
		Profit	0.09	
	Agreed Reasons	Size	2.23	
		Profit	0.30	
	Consensus Levels	Size	0.03	
		Profit	0.04	
WEAKNESSES	Stated Reasons	Size	0.00	
		Profit	1.59	
	Agreed Reasons	Size	0.58	
		Profit	0.04	
	Consensus Levels	Size	0.04	
		Profit	3.06	
CRITERIA	Stated Reasons	Size	0.86	
		Profit	0.00	
	Agreed Reasons	Size	2.25	
		Profit	0.00	
	Consensus Levels	Size	0.86	
		Profit	0.85	

TABLE 45

companies achieved a better level of consensus than those in the smaller companies. Did this picture remain when executives were asked to comment upon the pre-acquisition procedure adopted with the benefit of hindsight? The same format of analysis was adopted for 'ideal' responses.

Category	Measure	Financial Measure	Chi-squared	Result
TRIGGER	Stated Reasons	Size	0.14	
		Profit	0.33	
	Agreed Reasons	Size	0.79	
		Profit	0.20	
OBJECTIVES	Stated Reasons	Size	0.41	
		Profit	2.27	
	Agreed Reasons	Size	2.25	
		Profit	0.24	
STRENGTHS	Stated Reasons	Size	0.87	
		Profit	0.09	
	Agreed Reasons	Size	8.06	*
		Profit	3.30	
WEAKNESSES	Stated Reasons	Size	0.22	
		Profit	1.06	
	Agreed Reasons	Size	2.81	
		Profit	3.06	
CRITERIA	Stated Reasons	Size	0.07	
		Profit	0.04	
	Agreed Reasons	Size	6.26	*
		Profit	0.24	

TABLE 46

8.4 SIGNIFICANT TREND - Ideal responses.

Category	Measure	Financial Measure	Chi-squared	Result
OBJECTIVES	Stated Reasons	Size	1.31	
		Profit	0.04	
	Agreed Reasons	Size	6.25	*
		Profit	0.04	
	Consensus Levels	Size	6.00	*
		Profit	1.25	
STRENGTHS	Stated Reasons	Size	8.30	*
		Profit	4.97	*
	Agreed Reasons	Size	6.26	*
		Profit	3.17	
	Consensus Levels	Size	0.32	
		Profit	1.25	
WEAKNESSES	Stated Reasons	Size	0.64	
		Profit	0.01	
	Agreed Reasons	Size	4.91	*
		Profit	0.40	
	Consensus Levels	Size	6.79	*
		Profit	0.44	
CRITERIA	Stated Reasons	Size	0.89	
		Profit	0.03	
	Agreed Reasons	Size	2.34	
		Profit	0.12	
	Consensus Levels	Size	0.75	
		Profit	0.81	

TABLE 47

These results are very interesting since not only are many more significant results obtained, but also the dominant characteristic is a significant trend in size. Thus those companies whose size showed an identifiable trend, whether positive or negative, were those where executives -

1. agreed upon more objectives, strengths and weaknesses.

2. stated more strengths.

3. agreed more upon corporate objectives and weaknesses.

In only one case was a significant trend in profit an identifiable factor, this occurring when examining the number of corporate strengths stated by executives. Was this dominance of size continued when substituting the actual magnitude of size and profit for a significant trend in size and profit? Table 48 in the next section shows the results of such an analysis.

8.5 MEAN FINANCIAL PERFORMANCE - Ideal reasons.

Compared with the similar analysis of 'actual' responses, there are two additional significant results both involving the relative magnitude of profitability. Thus the more profitable companies stated more objectives and agreed upon the existence of more strengths than the less profitable companies.

Category	Measure	Financial Measure	Chi-squared	Result
OBJECTIVES	Stated Reasons	Size	0.91	
		Profit	4.91	*
	Agreed Reasons	Size	1.58	
		Profit	1.58	
STRENGTHS	Stated Reasons	Size	2.49	
		Profit	0.35	
	Agreed Reasons	Size	6.26	*
		Profit	4.66	*
WEAKNESSES	Stated Reasons	Size	0.34	
		Profit	0.64	
	Agreed Reasons	Size	0.91	
		Profit	0.01	
CRITERIA	Stated Reasons	Size	1.75	
		Profit	0.32	
	Agreed Reasons	Size	4.03	*
		Profit	0.02	

TABLE 48

8.6 The results of the financial analysis to date are very mixed, the most noticeable points being a tendency for size, whether an identifiable trend or relative megnitude, to occur as a significant factor more frequently than profit. Further analysis underlines this observation. Table 41 ranks the companies in order of the level of agreement amongst executives over all categories of trigger, objectives, strengths, weaknesses and acquisition criteria. This ranking was compared with the ranking of companies by mean size and mean profitability. The results were:

SIZE: Spearman's Rho = 0.52

PROFIT: Spearman's Rho = 0.10

5% significance level = 0.388

This shows a significant relationship between the size and levels of agreement such that the larger the company, the greater the agreement amongst executives on pre-acquisition procedure. Superficially, this would appear a strange result, as a first reaction would be to expect this to occur in the smaller companies where a greater opportunity exists for executives to be involved in all aspects of the decision-making process. However, reference to the earlier sections of this chapter highlights the relationship between size and the type of planning system. Thus, whilst not implying any causality, it must be noted that the larger companies with the more formal planning systems are those where agreement is highest. Again it would appear that planning does pay.

8.7 When executives were allowed to criticise or comment upon pre-acquisition procedure, the situation in the preceding paragraph did not apply. Previous analysis had shown that in this situation levels of agreement varied within the company according to the matter discussed, and thus it was necessary to test each section separately. The results were as shown below:

CATEGORY	FINANCIAL MEASURE	SPEARMAN'S RHO
Objectives	Size	0.19
	Profit	0.02
Strengths	Size	0.30
	Profit	0.23
Weaknesses	Size	0.13
	Profit	0.15
Criteria	Size	0.35
	Profit	0.01

TABLE 49

In no case was a significant result obtained and therefore, although the median level of agreement amongst executives is higher under ideal, rather than actual circumstances, the relative level of agreement is not a function of the relative size or profitability of the company. This leads to the conclusion that dissatisfaction is universal and is not confined to a particular size of company or to companies with a particular level of profitability.

THE ROLE OF THE CHIEF EXECUTIVE

9.1 Previous analysis has shown that the level of agreement amongst executives as to the nature of the acquisition process was low. One aspect of this problem which requires further analysis is the nature of this disagreement, particularly with reference to the role played by the most senior executive involved. Did he define the field in which his colleagues chose to play?! For each pre-acquisition category, the items which he states are compared with the consensus items, and a score obtained. Thus

Item	Senior Executive	Consensus Items
A	✓	✓
B	✓	
C	✓	✓
D	✓	

$$\text{Score} = \frac{2}{4} = 50$$

In five cases only were any consensus items not listed by the senior executive. The results for actual are shown in table 50 and for ideal in table 51.

The results show that the perception of the Senior Executive as to the decision-making process differs substantially from those of the rest of his executive team. Whilst this may be for good reason, it is disturbing that the lack of communication identified previously appears to take this form, and does support the view that major strategy decisions are often taken by individuals, perhaps for emotional reasons without serious discussion with other executives involved.

Company	Trigger	Objectives	Strengths	Weaknesses	Criteria
AA	100	0	50	0	60
AM	100	33	50	0	30
B	NOT APPLICABLE				
BE	50	33	100	50	100
BR	50	33	100	50	100
CK	67	0	0	0	80
CD	33	0	0	0	20
C	NOT APPLICABLE				
FV	50	100	0	0	50
FP	100	100	50	0	0
G	0	37	50*	100*	75*
I	50	0	0	0	50
L	100	25	29	33	50
ME	0	0	67	0	75
M	0	0	0	0	20
QK	33	0	100	0	60*
QS	25	0	100	0	40
RJ	25	50	100*	33	0
R	0	50	0	0	43
S	NOT APPLICABLE				
Median	50	25	50	0	50

TABLE 50

* cases where one or two consensus items are not stated by the senior executive.

Company	Objectives	Strengths	Weaknesses	Criteria	Composit Rank
AA	33	50	0	60	11
AM	33	50	0	100	9
B		N O T	A P P L I C A	B L E	
BE	33	100	50	100	1.5
BR	33	100	50	100	1.5
CK	33	0	0	60	15
CD	33	0	0	20	16.5
C		N O T	A P P L I C A	B L E	
FV	20	50	0	0	16.5
FP	100	0	0	60	10
G	50	50	33	75	4
I	100	0	100	100	3
L	25	29	33	50	12
ME	50	67	0	75	5.5
M	0	0	0	25	7
QK	50	100	0	60	5.5
QS	0	100	0	40	14
RJ	33	100	33	25	7
R	50	0	0	43	13
S		N O T	A P P L I C A	B L E	
Median	33	50	0	60	

TABLE 51

Three major characteristics, also consistent with previous results, are apparent:

1. The low scores for objectives and corporate weaknesses, and the higher scores for acquisition trigger, corporate strengths and acquisition criteria. This indicates a lack of control and discussion in the more 'sensitive' areas and difficult areas.
2. The increase in scores from actual to ideal, whilst not very great, does show that executives tend to agree more on what should have happened rather than what did happen. This is perhaps excusable for companies which were making an acquisition for the first time, but this was never the case. Almost all executives interviewed had previous experience, usually in the company involved. It would seem therefore, that in such situations the pressures, both emotional and commercial, are so great that decisions are taken hurriedly without much discussion.
3. Whereas apparent inconsistency across sections for actual was observed, consistency occurred for ideal. The companies were ranked by score within each category and the rankings were compared. Thus -

ACTUAL: Kendall's coefficient of concordance = 0.29

$S = 2609, \chi^2 = 23.2$, 5% SL = 27.59

Conclusion: disagreement in rankings, indicating that not only does the level of control vary according to the category examined, but also that the attention which the senior executive appeared to devote to communicating his thoughts is variable.

IDEAL: Kendall's coefficient of concordance = 0.41

$S = 2499, \chi^2 = 27.9$, 5% SL = 27.59

Conclusion: agreement in rankings, indicating that not only is discussion greater with hindsight but also the amount which takes place is constant over all categories. Thus a composite ranking amongst all companies as shown in table 51 can be constructed.

9.2 The second stage of this analysis was to compare the scores for each company with the financial size and performance of that company. For example, actual scores (trigger)

SIZE	Score		Total
	Above median.	Below median	
Significant Trend	4	2	6
Not Significant Trend	5	6	11
Total	9	8	17

$\chi^2 = 0.66$, d.f. = 1, 5% SL = 3.84

NB. The values in the body of the table show the number of companies in each category.

In this case, no relationship appears to exist between the stability of growth in the size of companies and the senior executives 'grip'. The results of all the other analyses for significant trend in both size and performance are similar, and are shown in table 52. Note that for ideal only the composite rankings are used.

RESPONSES	MEASURE	CATEGORY	CHI-SQUARED
ACTUAL	SIZE	Trigger	0.66
		Objectives	0.66
		Strengths	0.27
		Weaknesses	3.7
		Criteria	0.27
	PROFIT	Trigger	0.60
		Objectives	0.60
		Strengths	1.65
		Weaknesses	1.07
		Criteria	0.09
IDEAL	SIZE	Composite ranking	1.00
	PROFIT	Composite ranking	0.60

TABLE 52 (5% S.L. = 3.84)

However, when comparing mean score in size and profit with senior executives scores, significant relationships are identified - see table 53.

Once again size dominates. Those larger companies with more formal planning systems are those where the senior executive is more in touch with his colleagues.

RESPONSES	MEASURE	CATEGORY	CHI-SQUARED	RESULT
ACTUAL	SIZE	Trigger	0.67	
		Objectives	4.57	*
		Strengths	7.11	*
		Weaknesses	6.50	*
		Criteria	1.49	
	PROFIT	Trigger	1.65	
		Objectives	1.47	
		Strengths	4.43	*
		Weaknesses	0.01	
		Criteria	0.82	
IDEAL	SIZE	Composite ranking	1.40	
	PROFIT	Composite ranking	3.06	

TABLE 53

* significant at 5%

POST-ISSUE ACTION

10.1 The exact nature of the changes which took place within each acquired company after negotiations had been completed is described in each of the individual reports. This section will aggregate the results in order to identify possible common problems. It is suggested by the researcher that the amount of change found to be necessary could be a function of the nature of the acquisition. Each one discussed is therefore classified under the following headings:

1. Similar products, same markets, SCORE = 1
2. Similar products, same markets, geographic expansion, SCORE = 2
3. New products, same markets, SCORE = 3
4. New products, new markets, SCORE = 5
5. Forward vertical integration, SCORE = 4
6. Backward vertical integration, SCORE = 4

A simple scoring system was used in an attempt to indicate the relative amount of possible knowledge within the acquiring firm of the nature of the acquired business. Table 54 classifies the acquisitions discussed in this form, comparing these results with the score from table 1. Table 1 shows the amount of change which took place and the score from table 5 shows the extent of pre-acquisition planning.

	Acquisition Score	Change Score	Planning Score
AA	5	76	50
AM	1	48	100
B	1	43	93
BE	2	61	75
BR	5	67	92
CK	1	76	93
CD	2	62	71
C	1	67	100
FV	1	43	93
FP	5	38	86
G	2	62	100
I	1	71	100
L	1	71	64
ME	1	78	92
M	1	90	71
QK	4	89	50
QS	4	67	83
RJ	1	76	57
R	1	62	50
S	2	71	93

TABLE 54

The acquisition score is compared with that of the change score, and the planning score, tables 55 and 56.

Acquisition Score	Change Score		Total
	Above median	Below median	
1, 2	8	7	15
4, 5	4	1	5
Total	12	8	20

TABLE 55

$\chi^2 = 1.11$, d.f. = 1, 5% SL = 3.84

These results show no apparent relationship between the two factors and thus it would appear that knowledge of the products or markets of the acquired company does not affect the amount of post-acquisition re-organisation. However, does it facilitate pre-planning?

Acquisition Score	Planning Score		Total
	Above median	Below median	
1, 2	7	8	15
4, 5	3	2	5
Total	10	10	20

TABLE 56

$\chi^2 = 0.26$, d.f. = 1, 5% SL = 3.84

Again, pre-knowledge appears to be of little help. Any warnings of possible problems were almost equally divided between 'new' ventures as shown by scores of 4 and 5 and 'familiar' ventures as shown by scores of 1 or 2.

10.2 The above analysis is, however, based upon aggregate results and may therefore mask significant relationships between the changes which took place in individual areas and the nature of the acquisition

<u>ORGANISATION STRUCTURE</u>

The organisational changes which took place were of four major types, viz.

a) the acquired company was left as a separate entity and the parent company exercised limited control upon operational matters. Where necessary, however, the structure was formalised and clarified, although not necessarily in the same pattern as that of the parent company.

b) the acquired company became a new division of the parent company. Again, the internal structure tended to be strengthened rather than changed.

c) the identity of the acquired company became lost totally when merged into an existing division of the acquisitor.

d) the acquisition or merger was so large that it was necessary to create a totally new structure based upon the new product/asset mix.

Whereas the type of re-organisation found to be necessary was in part a function of the relative sizes of the two companies involved, it was independent of the nature of the acquisition. This is seen in table 57.

Organisation change	Acquisition Score				Total
	1	2	4	5	
Forged links	5	0	0	1	6
Created new division	1	1	1	0	3
Merged into existing division	3	0	1	1	5
Created new structure	2	3	0	1	6
Total	11	4	2	3	18

TABLE 57

There appears to be little here which suggests guidelines for the structure appropriate to absorbing a new company. For example, where the proposed addition was large, having similar products in the same markets, some companies adopted a strategy of leaving the company almost entirely alone whereas others merged the products and created an entirely new structure.

MANAGEMENT:

None of the acquiring companies planned any major redundancies in the labour forces of the victim firm. In the few cases where plant was moved or closed down, the work force was offered alternative jobs. This had created little trouble since major change appeared inevitable whether or not the company had been acquired. For the most part executives interviewed felt it was unwise to disrupt an already delicate situation by such provocative moves, particularly when they were not in any real position to judge the quality of individual operatives. This was not the case for management, however, especially in the upper echelons. In most of the twenty acquisitions discussed, at least one of the Board members of the acquired firm either left voluntarily or was sacked, usually the latter. Examining these further, it can be seen that acquirers tend to strengthen those acquisitions which they intended to leave as a separate entity by introducing their own 'more skilled management team'. (See table 58).

Organisation change	Board and senior management changes
Forged links	4
Created new division	3
Merged into existing division	1
Created new structure	1

TABLE 58

It must be noted that whilst most executives felt that the acquisition discussed had been a success, many also commented that this had been at the expense of other, possibly more profitable, ventures and management 'health'.

ASSETS:

No real asset stripping took place, merely a few 'cosmetic exercises' where the victim firm had collected some minor interests which did not fit with any of the other product lines, and which did not offer real opportunities for possible future expansion within the prevailing 'concept of the business'.

PRODUCTION:

The changes in production processes and facilities tended to be of two forms. Either major rationalisation, including heavy investment in new equipment, was necessary, or the factories were left almost completely alone. However, the nature of the change was not a function of either the size or the nature of the acquisition, although two of the three cases where executives had previously explained that eventual action had not been planned, involved fundamental and expensive production re-organisation.

MARKETING AND PRODUCTS:

Seventeen of the acquisitions discussed involved companies wishing to extend or re-inforce their product-line. In the other three, the emphasis was upon obtaining retail outlets for existing products. Therefore, apart from a small amount of product pruning within the victim firm and product rationalisation across the two companies, no changes were found to be necessary.

Whatever the nature of the acquisition, executives felt that the marketing strategy adopted formed the companies' 'public face' and therefore either a corporate image, or a corporate approach, or both, was imposed upon the acquired firm. In the first instance, that of the corporate image, all the products were merged into one group, being sold as a complete package with often a change in name. In the second instance, that of a corporate approach, the strong brand image of the acquired product-line was left intact. Any change which took place tended towards the imposition of the acquired company's marketing techniques.

MONITOR AND CONTROL SYSTEMS:

The control systems which acquiring firms inherited varied widely from the apparently highly sophisticated computerised system, to virtually no system at all. Unfortunately, in the extreme cases the system tended not to fit the business. Thus relatively large companies with many products used the 'back of the envelope technique', whilst small, one product-line companies, used expensive computerised equipment. Even with agreed bids it was often difficult for executives of the acquiring firm to obtain a detailed view of the systems adopted, and therefore although he knew that change would be necessary to bring the reporting system into line, the extent of work which was eventually necessary was often a surprise. The types of change are listed below:

Type of change	Companies
No changes	1
Small changes to bring system 'into line'	9
Substantial re-organisation of existing system	5
Completely new system introduced	4
No consensus	1

TABLE 59

SUMMARY:

10.3 The amount and type of change which occurred within a victim firm not appear to be a function of the type of acquisition made. This is not surprising as the attraction of a company is not necessarily related to its commercial health but rather the financial cost of acquisition, the internal needs of the acquiring firm and the confidence that the proposed new management have of their own ability to make it a successful venture. Strangely enough this confidence does not appear to vary according to the nature of the acquisition and their depth of knowledge of the new business. This last point also applies to the extent to which they were able accurately to plan post-acquisition action. The comments of a large number of executives leads the researcher to the view that this is a function of the health of the acquired company, the eagerness of the Board to sell and most important of all, the personal relationships between the two negotiating teams.

THE NATURE OF THE ACQUISITION:

11.1 The previous section introduced a further factor into the analysis whilst examining post-acquisition action in an attempt to identify possible reasons for change. This factor was the product/ market relationship between the two companies concerned and could be classified under six major headings (see section 10.1), only four of which were to be seen in the acquisitions discussed. Whilst no post-acquisition relationships were observed, the choice of acquisition type could be a function of the planning system, the financial health of the acquisitor, the internal audit procedure, boardroom communication. Each of these possibilities is examined in turn.

11.2 THE PLANNING SYSTEM:

The planning system adopted within the acquiring firm as shown in table 1 of this chapter was not related to the type of acquisition.

Acquisition Score	Planning system score		Total
	Above median	Below median	
1, 2	11	4	15
4, 5	3	2	5
Total	14	6	20

TABLE 60

$\chi^2 = 0.22$, d.f. = 1, 5% SL = 3.84

There is no relationship between the two factors which indicates that companies are likely to leap off into the unknown, whatever the nature and extent of their planning system.

11.3 FINANCIAL HEALTH:

In this case, the scores were related to both trend and magnitude of size and profitability. The results shown below indicate that no relationship could be identified.

Measure	Chi-squared
Trend in size	0.42
Trend in profit	0.17
Mean size	0.01
Mean profit	1.36

TABLE 61

NB. d.f. = 1, 5% SL = 3.84

11.4 PRE-ACQUISITION AUDIT:

Acquisition Score	Audit score (table 1)		Total
	Above Median	Below Median	
1, 2	9	6	15
4, 5	1	4	5
Total	10	10	20

TABLE 62

$\chi^2 = 2.4$, d.f. = 1, 5% SL = 3.84

Although four of the companies where an entirely new venture was adopted conducted meagre self-analysis, this is insufficient to suggest that it is a normal situation, since a number of companies trying more familiar fields also failed to conduct an extensive internal audit.

11.5 LEVELS OF AGREEMENT:

The level of agreement amongst executives upon the decisions made prior to the acquisition made was analysed in detail in section 7 of this chapter, the composite ranking for 'actual' in table 41 and individual rankings for 'ideal' in table 42 were compared with the acquisition score. The results are seen below:

Area	Chi-squared
Actual Composite ranking	2.44
Ideal: Objectives	2.79
Strengths	0.01
Weaknesses	2.79
Criteria	2.13

TABLE 63

NB. d.f. = 1, 5% SL = 3.84

Thus executives are likely to disagree or agree substantially amongst themselves upon decisions which were, and which should have been taken prior to the acquisition whatever its nature.

POST-ACQUISITION EVALUATION

12.1 The last question which the researcher asked executives concerned the success of the acquisition. Responses varied both within and amongst companies, but nearly all executives concentrated upon their performance in achieving the specific targets of embracing the new acquisition, rather than the wider question of whether the acquisition should have been made at all.

12.2 The general consensus for all acquisitions discussed was that, whilst not always ideal, they had been successful within the limitations of the conditions at the time. In 17 of the cases some measure of agreement was observed as to the reason for such statements, and of these, 13 concerned profitability in some form. Whilst this is consistent with answers to questions concerning pre-acquisition objectives and criteria, it is disturbing that, as before, many responses were vague - "profits have increased". In the remaining cases, criteria were particularly negative -

"we have no reason to say that it wasn't successful".

"we made the acquired company efficient".

12.3 When comparing these companies to those where no consensus was achieved with the planning system in operation, a significant result is obtained.

Success *	Planning Score		Total
	Above median	Below and equal to median [40]	
Group A	8	5	13
Group B	1	6	7
Total	9	11	20

TABLE 64

$$\chi^2 = 4.28, \text{ d.f.} = 1, \text{ 5\% SL} = 3.84$$

* Group A = companies with consensus on financial criteria.

Group B = negative criteria plus no consensus.

Thus it would appear that those companies which use informal planning systems tended either to disagree upon the eventual outcome of the venture, or to feel negative about it. In the latter case, these were situations where the original acquisition was of a defensive nature where only one company had been considered. On the other hand, those companies with the more formal approach to planning tended to search for possible acquisitions, set up some form of financial criterion however loose, and tended to be more satisfied with the eventual outcome. Once again, planning does pay.

CHAPTER 5

SUMMARY AND CONCLUSIONS

INTRODUCTION

1.1 As described in the introductory chapter, research into the nature of the planning and acquisition processes adopted by companies both in the United Kingdom and the United States is of limited value. Either the questions posed were too simplistic - does your company use a corporate planning system? - or they were directed to only one or two facets of the system such as corporate objectives. The researcher believed that planning systems, pre-acquisition procedures and post-acquisition action varied substantially amongst companies both in content and in formality. The question to be examined is whether one might expect the better defined systems to lead to more logical acquisitions and superior financial performance.

Thesis propositions:

1.2 This chapter summarises the results of the major propositions of the thesis as outlined below, the results of all the subsidiary propositions being dealt with fully in the preceeding chapter.

1. The methodology of formal corporate planning systems would embrace the following format:
   a) a clear definition of prime objectives
   b) the monitoring of environmental factors which may affect the business.
   c) an evaluation of corporate strengths and weaknesses.
   d) a re-alignment of product/market strategy as a result of the above factors.
   e) a well defined financial control system.
2. A formal system would identify the need for acquisition.
3. Companies with formal systems would tend to use a formal approach to acquisition evaluation, the approach following a similar format to the planning system, viz:-
   a) An internal audit covering
      1. an analysis of the 'concept of the business'.

2. an evaluation of corporate objectives.

3. an analysis of corporate strengths and weaknesses.

b) Formal acquisition criteria which sought some form of synergy between the two companies.

4. The extent of pre-acquisition evaluation seen to be necessary would be a function of the perceived nature of the 'problem'.

5. Companies which used a formal approach to the acquisition would be more aware of the possible costs involved.

6. Companies which used a formal approach to planning would be more likely to be aware of possible problems post-acquisition than those which did not.

7. The extent of change in the victim firm found to be necessary post-acquisition would be a function of

   a) the extent of pre-acquisition planning.

   b) the nature of the acquisition.

8. Those companies with more formal systems would tend to make more successful acquisitions.

9. Those companies with more formal systems would tend to be financially more successful than those with less formal systems.

These first nine propositions of the research dealt with actual events within each of the Companies and in order to obtain such information, multiple interviews were conducted and only that upon which executives agreed was viewed as having occurred. Thus the second series of propositions concerned the identification and analysis of questions upon which executives disagreed, viz:-

1. Lack of consensus would occur at all stages in those companies which did not use formal planning systems.

2. Lack of consensus would tend to occur upon questions of discussion rather than those of fact.

3. Lack of consensus would tend to occur because of lack of control on the part of the chief executive.
4. Lack of consensus would tend to occur in relatively large companies.
5. Lack of consensus would tend to occur in less profitable companies.

The underlying assumption embracing this analysis was that lack of consensus implied lack of communication between executives upon the decisions made within the company.

The last section of this research thesis investigates further Levinson's [6] proposition that corporate decisions are made often for emotional, rather than rational, reasons.

The results of each of the major propositions are summarised below: inferences to be drawn from the results appear at the end of each section.

THE NATURE OF THE PLANNING SYSTEMS AND THEIR RELATIONSHIP TO COMPANY SIZE AND PROFITABILITY.

2.1 The research confirms the view that planning systems vary in both their degree of formality, width and depth. No one universal system existed although all followed the outline previously described. Apart from a financial control system, which all companies adopted to varying degrees, no other facet of the system dominated, each being adopted by about half the companies interviewed. Whilst this, in itself, is not particularly startling, further examination showed a direct relationship between the size of the company and the type of planning adopted such that the larger companies tended to use more complex and formal systems. Executives in smaller companies considered strategic planning was a very important aspect of company operations which they should be using, 'but time and abilities did not permit such luxuries.'

2.2 This latter point highlights particularly the dilemma which executives of small companies constantly referred to during the interview. On the one hand they are responsible for day-to-day operational matters, and on the other for strategic planning. The former responsibility tends to take precedence despite the fact that the outline system described in the research does not necessarily require a detailed data support, but merely that they should regularly meet to discuss and agree upon the future direction of the business.

2.3 Results did not support the view as proposed by Norburn[19] that companies with the more formal systems of planning were amongst the most profitable of their competitive peer group. Further investigation in this area is obviously needed.

THE RELATIONSHIP BETWEEN THE PLANNING SYSTEM AND THE ACQUISITION PROCESS

3.1 Despite the conflict with Norburn's findings described in the preceeding paragraph, executives from those companies with the more formal planning systems expressed significantly greater satisfaction with those acquisitions in which they had been involved. However, it should be emphasised that no single definition was equated with the word "successful": nevertheless, various measures of profitability became the dominant criterion.

3.2 Where a formal planning system existed, it identified the need to acquire and the areas of possible search. Although this did not lead automatically to a successful outcome, the discipline required meant that companies converged upon the need to acquire as an iterative, rather than an opportunistic process. The fact that executives were aware of the changing environment in which they were operating enabled them to predict problems more easily than those executives in the smaller, apparently less organised, companies.

3.3 The extent of the pre-acquisition audit and specification of formal criteria was directly related to the type of corporate planning system in operation, supporting the views of Kitching[21] and Hal Mason[12]. However, this was not related to the magnitude of the acquisition, nor the extent of change in corporate direction (see section 10.1, chapter 4 for a definition of various possible changes). It is reassuring that companies which purport to have a planning system do appear to use it. However, a note of caution must be sounded as over-indulgence can be as bad as under-indulgence, since it could suppress, rather than channel, creative thought. Excessive analysis prior to a small acquisition has a substantial opportunity-cost in both managerial time and alternative strategic options. The situation should dictate the requirements rather than the system.

SIGNIFICANT FACTORS IN THE ACQUISITION PROCESS

Acquisition trigger and prime corporate objectives.

4.1 A more detailed examination of each section showed that by analysing the individual responses of executives, heavy emphasis was placed upon the importance of adapting company strategy to a change in the marketing environment. This supports the findings of McGowan[11]. Indeed, many of the resultant acquisitions studied in this thesis arose from market considerations. Whilst this was not surprising, the researcher also expected to see an emphasis upon financial considerations such as described by Buckley[8], Burck[9] and Boulden[10] both as acquisition triggers, and as prime corporate objectives. Profitability was mentioned as a trigger in seventeen of the twenty companies interviewed, but only in one did executives actually agree - consensus failed to exist in the other sixteen. Despite this, it was viewed as 'the name of the game' in nineteen companies and agreed upon in thirteen, although even in these companies, few executives were able to specify or quantify the actual measure used. In only three cases was any concern for the companies' market rating, as expressed in the price/earnings ratio, displayed. In each of these three, such responses came either from the chief executive interviewed, or the financial director: in no instance was this mirrored by his colleagues.

Many of those interviewed admitted freely that they had little understanding of financial matters, their responses fully supporting their statements.

4.2 It would therefore seem that the quality of decision-making within the boardroom would be improved if specialist executive functions could speak the "language" of business policy - that is, of financial control and financial implications of a strategic change. The "language" should be universal within the boardroom, not a skill of a technical function.

Corporate strengths and weaknesses

4.3 Executives across all companies were able to identify and agree upon more than twice as many strengths as weakness, it being significant to the researcher that, of these, 36% of the strengths and 58% of the weaknesses came under the heading of 'management'. Despite this, however, the eventual decision to continue with the proposed acquisition, plus part of the action taken post-acquisition, does not support the view that possible management problems were always recognised and discussed pre-acquisition but rather some time after.

THE USAGE OF THE FORMAL PLANNING SYSTEM

5.1 Initial analysis has shown that companies with formal planning systems appeared to use them when considering acquisition, the format for analysis being that described in the third proposition of this chapter, yet more detailed analysis showed that formal discussion appeared often not to take place. This was evident from two factors:

1. the substantial erosion between 'stated' and 'agreed' at all stages.
2. the small number of factors upon which they could agree, and the areas in which this agreement occurred - those which could be identified more easily post-acquisition.

5.2 Thus it would seem that executives pay lip service to the type of analysis described in the third proposition, the seeking of synergy being viewed as "a luxury which many could not afford". This point mirrors the findings of Kitching[21] in his Study of American companies, and Newbould[1] in his study of British companies. It is interesting to query this situation since even those companies where the planning system was in embryo executives were committed to the concept and intended to develop a full system in time. Many explained that whilst not necessarily changing the acquisition decision, discussion would have lead to a greater understanding of the situation and may have pre-empted problems. Three inferences could be put forward to explain this dilemma:

1. The timing of an acquisition and the perceived need for secrecy inhibit lengthy analysis.
2. Having taken the initial steps, executives become too emotionally involved to consider not acquiring. Analysis therefore becomes superfluous - a point developed further in this chapter.
3. Due to the limited understanding by executives of all aspects of business, particularly with regard to financial matters, full discussion is not possible.

5.3 The overall dilemma is supported further by the analysis of post-acquisition action seen in section 4.6 of the previous chapter. The areas where change (whether major or minor) actually took place can be divided into two groups -

1. In products, marketing, production and control systems, the required change had been identified and planned. All these were easily identifiable, the first three being a function of the original acquisition trigger, and the last being necessary in order to standardise reporting systems.

2. In organisation structure, asset structure, and management, over half the changes which eventually took place had not been planned. These are areas in which decisions were not always self-evident and which often require detailed analysis and discussion.

It would seem that the usage of planning systems is still in the early stages of development which Taylor and Irving[17], Hewkin and Kempner[18], and Norburn experienced.

THE METHOD OF CHOICE OF CORPORATE STRATEGY

6.1 Ansoff[14] has suggested the following method in choosing future product/market strategy.

MARKETS		PRODUCTS	
		Existing	New
	Existing	Penetration 1	Product development 2
	New	Market development 3	Diversification 4

Since risk increases as knowledge decreases, in moving from box 1 to box 4, any forecast of return must be commensurate with this, a view also supported by Brian[16]. The thesis acquisitions were therefore classified according to their nature by product and market relative to the product/market posture of the acquisitor, e.g. product development. Additionally, the markets were sub-divided into geographic and product bases (see section 10.1, chapter 4).

6.2 Analysis from this classification fails to support the hypothesis that such an approach was found to be useful or successful.

1. No evidence existed that executives followed the logical pattern in choosing a future strategy.
2. No relationship existed between the amount of pre-acquisition planning and audit, and the nature of the acquisition.

3. No relationship existed between the nature of the acquisition and the relative size or profitability of the acquisitor.
4. Knowledge of the products or markets of the victim firm did not affect the amount of post-acquisition action. Perhaps more importantly, it did not appear to facilitate the planning of any necessary changes.
5. No relationship existed between the type of organisation structure subsequently adopted and the nature of the acquisition.
6. No relationship existed between the levels of agreement amongst executives and the nature of the acquisition.

6.3 These results show that the approach suggested by Ansoff[14] to the choice of product/market strategy was not used and furthermore suggest that the basic thesis of risk being related to knowledge was not supported. However, since earlier results have shown that detailed discussion amongst the executives concerned was minimal, and that all companies seemed to be equally unaware of potential problems, it would appear that until pre-acquisition analysis and discussion within the board-room of the acquisitor improves, all proposed acquisitions, whatever their nature, will be equally risky.

THE POST-ACQUISITION EVALUATION

Subjective measures of success

7.1 In chapter 1 of this thesis, it was shown that many authors have attempted to evaluate the "success" of acquisitions using both financial and subjective measures. In each case the validity of the approach used was questioned by the researcher with the suggestion that the only appropriate criteria would be those used by the executives directly concerned. The results showed no real post-acquisition evaluation, criteria for success often being expressed in vague and unquantified terms.

More precise measures tended to be used by executives with a financial background. Nevertheless executives in those companies with more formal planning systems showed a higher level of agreement as to the eventual outcome, whilst those in companies with informal systems or no system at all tended either to disagree or to use negative criteria for the evaluation of success, e.g. "it wasn't a failure". Thus it would appear that measured in these terms, planning did pay.

THE ACQUISITION PROCESS RELATED TO COMPANY SIZE AND PROFITABILITY

8.1 Whilst it is not possible to relate directly corporate financial performance to one aspect of corporate strategy, e.g. an acquisition, would larger or more profitable companies show different characteristics from smaller or less profitable ones? Throughout the entire analysis the most significant factor was the dominance of size rather than profitability; thus -

1. Larger companies with stable growth patterns were those with formal planning and audit procedures.
2. No relationship existed between formality of planning and pre-acquisition audit, and profitability.
3. Larger companies with stable growth patterns were those which recognised the need to formalise prime corporate objectives.
4. No relationship existed between size or profitability, and any other aspect of the planning or pre-acquisition audit system.
5. Larger companies tended to pay a premium over net asset value for their acquisitions.
6. No relationship existed between any aspect of the bid and size or profitability.

7. No relationship existed between the extent of post-acquisition action, whether planned or un-planned, and size or profitability.

8. Larger companies with more formal systems were those in which executives showed a higher level agreement as to the events which had taken place.

8.2 These results support the view taken by Wrigley[38], and Channon[39], that the creation of formal procedures is a function of the size of the company, and that the formation of such procedures is an attempt to improve communication amongst executives. The mere existence of a formal system does not lead automatically to a superior profit performance. The system itself is sterile without executive commitment to its use as a dynamic. The system provides the framework by which executives collectively determine company policy: it is not a substitute for the boardroom.

8.3 The lack of both discussion and communication in decision-making amongst executives was prominent throughout the research. At all stages of the acquisition process a substantial gap existed between that which individuals perceived to have happened, and that which they could agree upon. The level of consensus throughout the analysis varied between 20% and 57%, i.e. a disagreement of between 80% and 43% of the factors discussed. When executives were asked to comment upon events with the benefit of hind-sight, the level of consensus increased. This supports the view previously expressed by the researcher that whilst executives are aware of the need for strategic analysis and discussion, they are often too pre-occupied with day-to-day operational matters to spare the time for wide ranging discussions however fruitful in the long run.

8.4 It could be argued that lack of agreement was merely a function of time; indeed, the areas where agreement was highest are those of post-acquisition action. However, further detailed study revealed that high consensus occurred in areas where executives need only recognise an event such as the acquisition trigger or post-acquisition action. Where discussion was required, such as in determining corporate strengths and weaknesses, consensus was low. Nevertheless although mean levels of agreement varied amongst categories, executives within one company were consistent in their performance compared to all companies: a relatively high or low level of agreement was maintained throughout the acquisition process. Also, and most significantly, a relationship did exist between the level of agreement within the company and the extent of formal planning and pre-acquisition audit. Executives in larger companies with more formal planning procedures showed a higher level of agreement as to events which had occurred, discussions which had taken place, and decisions which had been made. Thus although executives appear to pay lip-service to planning, even the best levels of agreement being very low, evidence does support the hypothesis that the formation of a system which structures the analysis process, however loosely, does pay.

8.5 Despite the extremely high level of disagreement amongst all companies, this latter point is emphasised further upon examination of the leadership role of the chief executive. Results showed that his perception of the decision-making process varied substantially from that of the rest of his team throughout all stages. This was most marked in the identification of prime corporate objectives and suggests particularly a lack of leadership within companies. Additionally this could explain the lack of discussion amongst other executives. However, despite this poor state of affairs, the existence of a formal structure did appear to produce a more cohesive management group since executives in larger companies with more formal planning procedures were those who demonstrated a high level of agreement, i.e. they were more in tune with their chief executive.

EMOTIONAL VERSUS RATIONAL DECISIONS

9.1 Levinson[6] and Rhys[13] have suggested that decisions made by senior executives of a company, particularly in the area of acquisitions, tend to be made emotionally rather than rationally. Whilst it is not possible to test this directly, a number of the research results support the thesis, viz:

1. the apparent lack of discussion amongst executives at all stages.
2. the vague criteria for success which could suggest an unwillingness to probe too deeply.
3. executives were more able to identify corporate strengths than corporate weaknesses.
4. more agreement on those decisions which should have been made (ideal), than on those which were made (actual).
5. the awareness of the importance of management as both a major strength and weakness, yet the ignoring of this factor in both the acquisition decision and post-acquisition changes.
6. no real evidence of planning in the areas of organisation structure and management - the possible problem areas.

In addition, the author considered that executives' definition of the 'concept of the business' was often a rationalisation of the decision to acquire.

MAJOR FINDINGS

10.1 Thus, summarising the results of the major propositions:

1. The extent to which formal planning procedures were used varied widely but the methodology embraced the following format:

   a) a clear definition of prime objectives

b) the monitoring of environmental factors

c) an evaluation of corporate strengths and weaknesses

d) a re-alignment of product/market strategy as a result of the above analysis

e) a well-defined financial control system.

2. Formal systems tended to identify the need for acquisition such that companies became problem avoiders rather than problem solvers.

3. Companies with formal planning procedures tended to formalise both the pre-acquisition internal audit and acquisition criteria. The audit was of the following format:

   a) an analysis of the 'concept of the business'

   b) an evaluation of corporate objectives

   c) an analysis of corporate strengths and weaknesses.

4. There was no evidence of a conscious seeking for synergy except in those areas identified by the acquisition trigger.

5. No relationship existed between the extent of pre-acquisition audit and the perceived nature of the problem.

6. No relationship existed between the planning and audit procedures, and the perceived cost of the acquisition.

7. No relationship existed between the amount of change required post-acquisition, whether planned or un-planned, and

   1. the extent of pre-acquisition planning

   2. the nature of the acquisition.

8. Executives of companies with formal planning procedures tended to be satisfied with their acquisitions.

9. Executives in companies with informal planning procedures tended either to disagree on the success of the acquisition or to agree on negative criteria for success.

10. A relationship did exist between size and formality. Those companies which were above average in size relative to competition tended to be those which used formal planning and audit procedures.
11. No relationship existed between formality of system and profitability.
12. Executives in companies which adopted formal procedures showed a higher level of consensus than those in companies which adopted less formal procedures.
13. A low level of agreement occurred when executives were asked to report the results of a discussion rather than describing events which had occurred.
14. A relationship did exist between the role of the chief executive and the type of planning system. Executives in companies with more formal planning procedures tended to be more in tune with each other and with their chief executive.
15. Executives in the larger companies tended to agree more than those in the smaller companies.
16. No relationship existed between levels of agreement and profitability.

CONCLUSION

11.1 In conclusion it would appear that the extent to which the companies formally planned and evaluated acquisitions was limited, although all executives felt that they should make more effort in this area. The major problem which arose amongst executives was a failure to communicate, although the creation of a formal planning system eased this situation. Whereas this structure can be shown to be beneficial to corporate development, it was found only amongst the larger companies. Smaller companies should note the fact that the value of such systems is in the logical approach to the choice of strategy being recognised and understood by all the management team. Although the regularity of meetings and the volume of data required will vary according to company size and product/market strategy, the structure itself imposes the discipline necessary to improve corporate decision-making.

2

APPENDIX

A STUDY OF CORPORATE ACQUISITION PROCEDURES AND THEIR RELATIONSHIP TO FINANCIAL PERFORMANCE

BY

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THESIS SUBMITTED TO THE UNIVERSITY OF LONDON FOR THE DEGREE OF Ph.D.

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CONTENTS

This volume contains the individual company reports placed in the following order.

BACKGROUND

The interests of the Group are divided into two areas, viz. Toys and General Plastics. The General Plastics division is further subdivided into Airfix Plastics which specialises in moulded plastic packaging and Declon Foam Plastics.

The toy division contributed 52% of the 1969/70 turnover, and 71% of the trading profit.

The two acquisitions are discussed :

(a) Airborne Shoes Ltd acquired by Airfix Plastics in

(b) Meccano Ltd acquired by Airfix Toys in December 1971.

OBSERVERS INTERVIEWED

Observer	Position	No. of Years	
		In Job	In Company
1	Chairman		
2	Director of Airfix Industries	0.5	3
	MD of Airfix Plastics	3	3
3	Non-executive director		

AIRFIX - FINANCIAL PERFORMANCE

(£'000)	1967	1968	1969	1970	1971
Turnover	5,614	5,595	6,418	7,224	8,540
Net Worth	2,291	2,444	2,664	4,034	4,212
Net Assets	3,806	3,895	4,161	4,654	5,569
PBIT	749	603	840	950	917
PAT	253	303	404	442	489
No. of Employees	NA	1,530	1,729	1,833	2,159
No. Shares ('000)	5,279	5,279	5,279	11,968	11,968
Gross Margin	5.8	8.6	11.3	11.2	10.7
Net Margin	4.5	5.4	6.3	6.1	5.7
Return on net assets	19.7	15.5	20.1	20.4	16.5
Return on net worth	11.2	12.4	15.2	11.0	11.6
Asset Turnover	2.5	2.3	2.4	1.8	1.5
Dividend Cover	1.44	1.43	1.59	1.42	1.47
Current Ratio	1.16	1.24	1.46	1.44	1.64
Acid Test	0.58	0.72	0.79	0.82	0.91
Debtors (days)	68	92	85	112	124
Gearing	26	24	22	15.4	16.4
Cost of Capital	NA	8.8	8.6	9.5	9.5
Turnover/Employee (£)	NA	3,700	3,720	3,950	3,950
Earnings per share (p)	4.8	5.7	7.6	3.7	4.1
Net assets per share (£)	0.72	0.74	0.79	0.39	0.47

AIRFIX - MARKET PERFORMANCE (BOT 49/1)

	1967		1968		1969		1970		1971	
	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI
British Sidac	12.85	9.0	14.19	15.0	15.90	13.2	16.55	13.1	16.81	2.9
Storey Brothers	—	13.4	10.40	12.0	11.64	13.5	10.91	11.1	11.65	15.9
Witter (Thomas)	8.15	17.2	8.66	15.1	8.05	7.9	8.43	12.4	8.93	10.7
Mettoy	8.68	35.3	10.00	29.8	9.37	18.9	10.78	3.5	10.48	Loss
RFD (Group)	5.50	14.4	5.58	16.2	5.38	13.0	5.49	10.5	5.75	9.4
Oxley Industries	8.17	11.5	11.28	15.1	6.75	Loss	4.74	8.1	5.33	8.6
Royal Sovereign Pencil	2.50	15.3	3.61	14.9	4.15	12.6	5.00	13.6	5.13	13.4
Boosey & Hawkes	—	25.0	5.55	30.7	7.10	28.1	8.20	28.5	8.50	25.2
Permali	—	12.1	3.66	13.4	3.70	11.6	4.54	14.7	4.81	13.4
Dunbee-Combex-Marx	—	18.1	4.62	23.1	5.47	21.4	5.74	15.0	NI	NI
Randall (J&L)	—	26.6	1.26	30.2	1.33	30.3	1.22	24.6	1.32	22.7
Viscose Development	—	15.7	1.90	19.6	1.94	17.5	2.13	18.2	2.31	17.0
Mentmore Manufacture	—	27.8	3.01	27.9	3.38	27.7	3.55	27.5	3.97	29.0
MY Dart (Games)	0.67	36.3	0.76	30.8	2.39	24.0	2.16	15.3	3.16	23.6
Kleen-e-ze Holdings	2.34	27.2	2.44	26.8	2.59	27.3	2.64	25.2	2.86	18.1
Ellams Duplicator	1.82	Loss	1.86	0.4	2.07	Loss	A	A	A	A
Chad Valley	1.99	3.3	2.18	6.0	1.97	6.2	A	A	A	A
Tam Sad Holdings	—	10.6	1.38	4.1	1.50	1.3	1.53	Loss	0.91	Loss
Rotaflex (GB)	1.65	11.6	2.12	29.9	2.58	34.6	3.75	38.8	4.78	43.0
Broadley (JB)	—	23.2	1.05	27.2	1.27	26.9	1.67	35.9	1.83	34.7
Thurgar Bardex	5.75	7.1	6.50	13.7	7.62	5.3	8.28	11.6	11.51	9.0
Newton (John M)	—	1.4	0.86	13.3	1.55	24.4	1.64	26.0	1.61	23.7
Supra Chemicals	0.62	22.1	0.67	27.0	0.70	28.8	0.56	17.2	0.76	26.6

A = Acquired

NI = Not issued at date of analysis

AIRFIX - MARKET COMPARISON

Size (£'000,000)

	Sample No.	Median	Mean	S.D.	Airfix	Score
1967	13	2.50	4.7	3.8	5.6	0.24
1968	23	3.01	4.45	3.9	5.6	0.29
1969	23	3.38	4.7	3.8	6.4	0.45
1970	21	3.75	5.2	4.1	7.2	0.49
1971	20	4.79	5.6	4.1	8.5	0.71

Return on Capital (%)

	Sample No.	Median	Mean	S.D.	Airfix	Score
1967	23	15.3	16.7	10.0	19.7	0.30
1968	23	16.2	19.2	8.8	15.5	- 0.42
1969	23	17.5	17.1	10.5	20.1	0.28
1970	21	14.7	17.6	10.0	20.4	0.28
1971	20	16.5	17.3	11.4	16.5	-0.07

SECTION 1: TRIGGER.

1.1. Little agreement existed amongst the observers concerning the type of planning system which was in operation at the time of the first acquisition. Observers 1 and 3 showed no change in their perception of the system prior to the second acquisition, but as only two observers were considered, the level of consensus improves. Table 1 illustrates this observation.

Area	Observer 1	Observer 2	Observer 3	CONSENSUS	
				Shoe Company	Meccano
Objectives	Informal Irregular	Informal Irregular	No System	x x	x x
Constraints	Informal Regular	Informal Regular	No System	x x	x x
Strengths & Weaknesses	Informal Irregular	Informal Regular	Informal Irregular	INFORMAL x	INFORMAL IRREGULAR
Product/ Market Strategy	Informal Regular	Formal Regular	Informal Irregular	x x	INFORMAL x
Control Systems	Formal Regular	Formal Regular	Formal Regular	FORMAL REGULAR	FORMAL REGULAR

TABLE 1: PLANNING SYSTEM.

1.2. It is interesting to note that the two observers more directly concerned with the acquisition of the shoe company agree almost entirely on the type of system in operation, and also agree that this system did not signal a need to acquire at that time. This is in contrast to the perception of observer 3 who described a situation where the system had highlighted two points which made it necessary to scan the environment for possible acquisition -

1. The future potential of the management of Airfix

2. The reliance upon a limited number of markets. [80% of Turnover came from toys].

All observers agreed that Airfix had been approached by Marks & Spencer, and asked to consider the purchase of the shoe company, observers 1 and 2 stating that this was the only signal and observer 2 giving the impression that the original impetus had come from himself.

1.3. Table 2 illustrates the factors which observers considered to be important as signals for the need to scan for possible acquisition.

	Observer 1	Observer 2	Observer 3	Consensus
<u>Financial</u>				
Liquidity				
Profitability	*	*		*
Gearing				
P/E or EPS		*		
<u>Marketing</u>				
No.of Products		*		
No.of Markets		*	*	*
No.of Customers				
Market Size				
Market Share		*		
Channels/ outlets		*		
<u>Production</u>				
Raw Materials				
Labour		*		
Processes		*		
Distribution				
<u>Corporate</u>				
Management		*	*	*
Image		*		
Legal				
	1	10	2	3

TABLE 2: IDEAL SIGNAL FACTORS.

It is worth noting that the person who, at that time, was not a member of the Main Board of the company was the one who required a very detailed scanning system. This dissatisfaction will be noted later in the analysis.

1.4. Insufficient agreement existed to establish an order of ranking, - Table 3 summarises this by showing the relative weightings attached to categories.

Category	Observer 1	Observer 2	Observer 3
Financial	1	2	-
Marketing	-	1	2
Production	-	4	-
Corporate	-	3	1

TABLE 3: CATEGORY RANKINGS.

SECTION 2: ELIMINATION.

2.1. Concerning the Shoe Company, Observers 1 and 2 agreed that although screening to choose company-type was unnecessary, an internal audit was made - this is in direct contrast to the perception of Observer 3 [see Table 4], who considered that the signalling system previously described plus an evaluation of question 1 below had highlighted the need to search for new acquisitions in the area of "disposable or plastic products".

	SHOE COMPANY			MECCANO	
	Observer 1	Observer 2	Observer 3	Observer 1	Observer 2
1. Consider Concept of Business?	YES	YES	YES	YES	YES
2. Re-assess Company Objectives	YES	YES	NO	YES	YES
3. Evaluate Strengths and Weaknesses	YES	YES	Unneces-sary	YES	YES

TABLE 4: COMPANY AUDIT.

Complete agreement existed as to the procedure adopted at the time of the acquisition of Meccano.

2.2. Concept of the Business.

Both members of the Main Board viewed Airfix Industries to be accurately classified as a Holding Company with 3 legs:

1. Kits and Toys
2. General Plastics and Packaging
3. Still to be found.

Whilst observer 2 considered the concept as described above to be correct, he did not think that the Board had come to this conclusion.

2.3. Objectives

Table 5 illustrates the objectives which observers perceived to exist at the time of both acquisitions.

OBJECTIVES	SHOE COMPANY			MECCANO	
	Observer 1	Observer 2	Observer 3	Observer 1	Observer 2
Growth	*			*	
Liquidity					
Profitability	*		N	*	*
P/E or EPS					
Volume			O		
Penetration	*			*	
Product Development			N		*
Market Development					*
Diversification			E		*
Price					
Customer Service					
Capacity Utilisation					
Level Production					
Costs					
Industrial Relations					
Image					
Community Service					
Productivity					*
Increase 'wealth' of organisation		*			

TABLE 5: ACTUAL OBJECTIVES.

When a test of consensus is applied [where two or more observers agree] there is complete disagreement as to the identity of objectives in existence at the time of the first acquisition and agreement on only 1 [profitability] at the time of the second.

2.4. The only person to question the perceived status quo both in terms of number specified and relative emphasis [= 0.46, 5% S.L. = 0.714] was observer 3 [the only non-executive director interviewed] - Table 6 illustrates.

OBJECTIVES	SHOE COMPANY		MECCANO	
	ACTUAL	IDEAL	ACTUAL	IDEAL
Profitability		1	1	1
Gearing	N	6		6
Product Development	O	4	3	4
Market Development	N	2	3	2
Diversification	E	7	3	7
Company Image		3		3
Productivity		5	5	5

TABLE 6: OBSERVER 3 RANKING OF OBJECTIVES.

2.5. Strengths and Weaknesses.

Table 7 shows how observers perceived the strengths and weaknesses of the company to have been determined prior to both acquisitions.

	STRENGTHS				WEAKNESSES			
	1	2	3	CONSENSUS	1	2	3	CONSENSUS
Financial:								
Profitability	4							
Gearing			4					
Marketing:								
Products	1		1=	*				
Markets					2			
Customers		1=						
Market Share					1			
Marketing skills			1=					
Corporate:								
Management	2	1=		*		1=	1	*
Image	3					1=		
Control Systems			3					
	4	2	4		2	1	1	

TABLE 7: RANKING OF STRENGTHS & WEAKNESSES.

Although substantial disagreement exists, no-one would change their evaluation. A number of points from the table require further clarification:

a) Since the quality of the existing products was viewed as a strength, observer 1 considered that the type of market (seasonal) and the share of the toy market were major weaknesses, the latter being due to the fact that opportunities for growth were limited.

b) The complete disagreement between observers 1 and 2 as to the 'image' of Airfix in the stock market.

c) Management skills were viewed as a major strength but the ability to change (2) and lack of courage (1) on the part of management, a major weakness.

2.6. Company Type.

Although all three observers were concerned that Airfix should be trading in 3 major areas, two of which were defined, there is no evidence that the company audit to date has revealed the 'third leg'. The two acquisitions probed were both as a result of unexpected opportunities, both strengthening the existing legs.

SECTION 3: CONCENTRATION.

3.1. Observer 2 was of the opinion that formal criteria were set up against which to measure the shoe company, these being its potential profitability [Rank 1], potential for further acquisitions from Marks and Spencer [Rank 2] and its "good" management [Rank 3]. This is in direct contrast to the answers from the two Main Board members who viewed the advantages to be its small size and the fact that "Marks & Spencer wanted it". In other words, it was not worth not buying it!

3.2. Table 8 shows the criteria used to evaluate the Meccano acquisition, viewed as correct by the two people concerned and the 'ideal' criteria for acquisition at that time as viewed by observer 1.

	MECCANO		CONSENSUS = $^2/2$	Observer 2	CONSENSUS = $\frac{2}{3}$
	Observer 1	Observer 3			
<u>Financial</u>:					
Liquidity					
Profitability	5=	1=	*	1	*
Gearing					
P/E or EPS	5=	1=	*		*
Size					
<u>Marketing</u>:					
No.products	1=	3	*		*
No./Type markets	1=			2=	*
Customers					
Market size	1=				
Market share	1=				
Channels					
<u>Production</u>:					
Raw materials					
Labour	9=				
Processes	9=				
Distribution					
<u>Corporate</u>:					
Management	7=			4	*
Image	7=			2=	*
Legal					

TABLE 8: CRITERIA.

From the results, it is apparent that the Chairman carried out a far more detailed analysis than the other two were aware of. It is worth noting that he considered that this analysis pointed to searching for growth in the area of plastic packaging, an area being technically and marketing related. This does however exclude the concept of the "third leg".

3.3. For the consensus items, no agreement existed as to their relative importance:

a) Observer 1 and Observer 3; Spearman's Rho = 0.5, 5% S.L. = 1.00

b) All 3 observers, using Kendall's Coefficient of Concordance; S = 45, X^2 = 4.3, 20% S.L. = 7.29.

SUMMARY OF CONSENSUS ON PRE-ACQUISITION PROCEDURE.

4.1. Substantial disagreement exists amongst the observers as to the procedure which was adopted in both cases and that which should have been adopted.

4.2. Although all observers are aware of the need to lessen the reliance on toys and to create a 'third leg', the evidence suggests that the company is tending to react to opportunities presented in existing areas [Rovex was mentioned as having been considered] rather than actively choosing new areas to scan. This is inconsistent.

SECTION 4: THE BID.

5.1. Shoe Company; Complete agreement;

a) Cash transaction due to the small size of the company

b) No premium over net asset value was paid

c) It was not necessary to raise the maximum price set.

Meccano; Almost complete agreement.

a) Cash transaction because the company was in liquidation

b) No premium over net asset value was paid

c) To the question - "Was it necessary to raise the maximum price set?" - the answers;

Chairman - No

Non-executive director - Yes

SECTION 6: POST MERGER.

6.1. Observer 3 appeared unaware as to any action post-merger except in the areas of Organisation structure and Control, where his answers agree with those of the other two. The action specified by observers 1 and 2 was agreed and is detailed below:-

a)	Asset structure:	No action.
b)	Marketing :	Closer co-operation with Marks and Spencer.
c)	Products :	Variety Reduction exercise.
d)	Production :	Scrapped old machines and put in new tracks. Work study exercise.
e)	Organisation :	Changed name. Sacked production manager. Formalised and clarified structure.
f)	Control :	Introduced completely new cost and profit control system.

6.2. Each observer was then asked if the action was pre-planned - the answers are shown in table 9, 'Yes' indicating that the action specified was planned.

Action Area	Observer 1	Observer 2	Observer 3
Asset structure	YES	YES	YES
Marketing	YES	YES	YES
Products	YES	YES	YES
Production	NO	NO	NO
Organisation	NO	YES	YES
Control	NO	YES	YES

TABLE 9: PLANNING

Note that observer 3 therefore viewed that nothing was planned and nothing happened in the first 3 areas - this is in direct conflict with the answers of observers 1 and 2. It is also obvious that the Chairman (observer 1) was unaware of the extent of remedial action required whilst observer 2, who was the originator of the suggestion to acquire this company, was aware to a greater extent.

6.3. When asked if they considered the actions taken to be correct, the only person showing unrest was observer 2 who thought that:

a) the relationship with Marks and Spencer had not been strengthened sufficiently.

b) all top management should have been removed from the company.

This is consistent with his view that one of the major weaknesses of Airfix Industries is the timidity of its management!

6.4. As a result of the action described previously, the consensus of opinion was that it took longer than expected to reach a satisfactory situation [Observer 2 - "we made a mess to start with and it took a long time to clear it up".].

6.5. When asked to evaluate the success of the exercise, answers varied:

Observer 1 - Successful because it was a good exercise in problem solving on a small scale.

Observer 2 - Qualified Success because the company hit a trough in fashion shoes, but

a) profits increased.

b) Airfix learned a lot!

Observer 3 - Unsuccessful because:

a) Airfix hasn't done as well as expected

b) the relations with Marks and Spencer haven't improved.

6.6. As the interviews were conducted immediately after the acquisition of Meccano, it was decided to delay the questions referring to post-merger action until a later date. However, the Chairman commented that he had decided to leave it alone until he had sufficient time to assess problem areas, since the existing management appeared to be competent.

Section A: Background.

The British Oxygen Company formed in 1886 to manufacture industrial and medical gases, and gas mixtures, is now a large international organisation with six major trading divisions - Gases, Welding Products, Chemicals, Metals, Advanced Engineering, Food Services.

The acquisition discussed is that of Deloro Stellite Ltd., which makes precision hard alloy castings, being incorporated into the Metals Division of the Company.

Section B: BRITISH OXYGEN. FINANCIAL PERFORMANCE.

(£'000)	1966	1967	1968	1969	1970	1971
Turnover	95,297	99,986	134,363	161,251	207,858	234,582
Net Worth	65,727	68,297	80,613	85,031	92,095	91,612
Net Assets	116,581	138,602	154,099	181,795	200,123	221,154
Profit before interest & tax	12,019	13,036	17,533	19,317	23,946	27,619
Profit after tax	4,229	4,349	5,696	5,824	7,582	8,370
No.employees	30,000	28,000	31,600	37,100	39,400	39,900
No.shares ('000)	164,176	164,176	180,260	189,916	199,676	201,128
Gross Margin	12.6	13.0	13.0	12.0	11.5	11.8
Net Margin	4.5	4.4	4.2	3.6	3.7	3.6
Return on Net Assets	10.3	9.4	11.3	10.6	12.0	12.5
Return on Net Worth	6.5	6.4	7.4	6.9	8.3	9.1
Asset Turnover	0.82	0.72	0.87	0.89	1.04	1.06
Dividend Cover	1.02	1.03	1.25	1.09	1.24	1.36
Current Ratio	1.43	1.37	1.93	2.5	2.3	1.76
Acid test	0.71	0.74	1.08	1.43	1.23	0.94
Debtors(days)	84	90	101	116	100	98
Gearing (%)	31	38	34	39	40	45
Average cost of Capital (%)	5.3	5.1	5.5	5.3	5.7	6.3
Turnover/ employee	3,180	3,600	4,250	4,350	5,300	5,900
*Earnings per share (p)	2.54	2.58	3.25	3.08	3.80	4.16
Net Assets per share (£)	0.71	0.84	0.86	0.95	1.00	1.1

TABLE A

* Adjusted for Scrip & Rights Issue.

Table B shows the performance of British Oxygen relative to the mean performance of all industries classified under the same main Standard Industrial Classification (S.I.C.) group - 271. However, this is a very broad group covering all aspects of 'General Chemicals' and a second analysis, (Table C) illustrates the performance of those companies within the main group classification considered by the Board of Trade to be comparable to British Oxygen. Table D summarises the results of this analysis.

The S.I.C. classifications are made by considering manufacturing process rather than end-user and only contain U.K. quoted companies. A third comparison is therefore made between the major competitor of British Oxygen as perceived by the observers - American based Air Products Co.Ltd.

Table E illustrates the relative size of the two companies as measured by turnover, and Table F their comparative performance.

TABLE B - Chemicals & Allied industries.

		1967	1968	1969	1970	1967	1968	1969	1970
Return on Net Assets	Mean	10.6	13.9	13.7	10.8	LOW	LOW	LOW	HIGH
	British Oxygen	9.4	11.3	10.6	12.0				
Current Assets Current Liabilities	Mean	1.9	1.85	1.66	1.61	LOW	HIGH	HIGH	HIGH
	British Oxygen	1.37	1.93	2.5	2.3				
Acid Test	Mean	1.15	1.16	1.03	1.04	LOW	LOW	HIGH	HIGH
	British Oxygen	0.74	1.08	1.43	1.23				
Long Term Debt Total Capital-isation	Mean	23	25	24	26	HIGH	HIGH	HIGH	HIGH
	British Oxygen	38	34	39	40				

TABLE C - SUB-GROUP 4

COMPANY	1969 Gross Income / Gross Assets	1969 Net Income / Net Assets	1969 Profit / Turnover	1969 Liquidity (AT)	1970 Gross Income / Gross Assets	1970 Net Income / Net Assets	1970 Profit / Turnover	1970 Liquidity (AT)
Fisons	13.4	11.8	12.0	1.29	10.8	8.7	10.3	1.09
Laporte	11.6	11.1	18.6	1.19	9.7	8.1	16.4	1.15
Coalite	30.6	37.9	27.6	1.72	26.8	32.0	24.2	0.98
Croda	20.9	16.8	9.2	1.02	-	-	-	-
Berk	13.8	13.0	5.4	1.59	-	-	-	-
Hickson & Welch	18.8	19.5	17.0	0.94	17.3	17.4	16.1	0.90
Midland Yorkshire Tar Distillers	12.6	11.7	13.5	1.71	8.9	7.6	10.2	1.63
Coates Brothers	28.6	31.1	16.6	1.25	27.8	30.1	15.1	1.05
Ault & Wiborg	14.2	14.3	8.2	0.74	15.5	16.4	8.9	0.81
Yorkshire Dyeware	19.1	14.7	18.3	0.88	-	-	-	-
Cooper, McDougall & Robertson	19.9	23.1	6.3	0.72	12.7	11.6	4.0	0.66
Philblack	17.5	21.7	29.6	0.67	14.3	15.1	24.9	93.4
Fleming	16.2	17.4	13.6	1.35	13.5	14.1	11.0	1.26
Revertex	24.2	27.9	11.0	1.17	20.5	22.5	8.6	0.91
National Carbonising	23.5	24.7	12.8	0.79	30.7	34.7	15.1	0.67
Jeyes	24.2	26.1	8.3	0.71	18.0	18.9	6.3	0.62
Sturge	18.5	23.8	18.2	0.97	10.5	8.8	11.7	0.72
Burrell	12.6	14.0	12.1	1.25	14.9	17.0	13.8	1.23
Holliday	7.2	10.6	8.0	0.92	6.2	7.3	6.8	0.75
Scottish Tar	13.1	13.7	9.8	1.85	12.5	13.2	12.9	1.77
Holt Products	26.5	27.7	11.2	0.99	22.0	22.4	9.0	0.72
Anchor Chemicals	17.4	16.5	3.2	0.92	15.9	13.1	3.4	0.90
Albright & Wilson	7.2	4.4	8.3	0.86	7.4	4.4	8.4	0.77
MEDIAN	18.5	16.8	12.0	0.99	15.5	14.1	11.0	0.90

Source: Board of Trade.

TABLE D - Median Performance in Sub Group 4.

	Median Performance		British Oxygen *			
	1969	1970	1969	1970	1969	1970
Gross Income / Gross Assets	18.5	15.5	12.1	12.5	LOW	LOW
Net Income / Net Assets	16.8	14.1	12.1	12.4	LOW	LOW
Profit / Turnover	12.0	11.0	18.0	15.8	HIGH	HIGH
Liquidity(AT)	0.99	0.90	0.92	0.74	EQUAL	LOW

* Note: The definitions used by the Board of Trade are slightly different from those used by the author in the first analysis.

TABLE E - SIZE (£'000)

Year	British Oxygen	Air Products	Air Products / British Oxygen (%)
1966	95,297	52,500	55
1967	99,987	65,500	65
1968*	134,363	84,000	63
1969	161,251	92,000	57.
1970	207,858	108,000	52

* Change of exchange rate.

TABLE F - Profitability and Performance

YEAR		Gross Margin	Net Margin	EPS(£)	Gross Margin	Net Margin	EPS
1966	Air Products	14.0	6.2	3.64	LOW	LOW	LOW
	British Oxygen	12.6	4.5	2.54			
1967	Air Products	12.9	5.9	5.05	EQUAL	LOW	LOW
	British Oxygen	13.0	4.4	2.58			
1968	Air Products	13.2	5.8	4.55	LOW	LOW	LOW
	British Oxygen	13.0	4.2	3.25			
1969	Air Products	13.8	6.1	4.55	LOW	LOW	LOW
	British Oxygen	12.0	3.6	3.08			
1970	Air Products	12.9	5.7	4.55	LOW	LOW	LOW
	British Oxygen	11.5	3.7	3.80			

BRITISH OXYGEN, LAPORTE, IZAL - MARKET PERFORMANCE (BOT 26/4)

	1967		1968		1969		1970		1971	
	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI
Albright & Wilson	105.9	6.8	111.9	6.6	120.5	5.0	129.0	5.2	123.9	5.9
Fisons	78.43	7.2	86.42	10.9	82.23	11.3	88.11	8.0	90.09	15.3
Coalite	12.68	26.8	15.74	30.0	18.80	37.5	19.87	35.2	22.70	28.3
Croda	17.07	16.1	26.85	14.7	28.02	15.9	37.26	16.0	51.16	15.2
Berk	15.94	7.3	17.12	13.3	21.35	13.0	A	A	A	A
Hickson & Welch	—	20.3	10.20	18.3	14.08	14.9	17.01	15.7	19.18	18.4
Midland Yorkshire Tar Distillers	6.34	10.3	12.59	11.7	11.26	11.1	11.34	11.5	11.42	7.8
Coates Brothers	—	27.3	16.53	28.2	18.87	27.0	22.82	26.1	25.7	27.1
Ault & Wiberg	—	15.7	10.81	15.9	12.61	16.6	13.18	13.6	13.19	15.1
Yorkshire Dyeware	4.47	11.9	4.93	15.0	5.83	14.4	6.38	15.0	7.98	20.6
Cooper. McDougall and Robertson	16.02	30.8	19.01	40.0	22.92	44.5	24.85	42.5	A	A
Philblack	3.49	20.0	4.11	26.4	5.34	33.4	5.09	21.0	5.39	14.4
Fleming	—	22.1	5.78	20.8	6.00	20.2	6.71	17.6	7.30	14.4
Revertex	8.44	19.8	9.26	23.5	12.70	23.8	16.17	16.2	17.77	13.0
National Carbonising	5.52	9.7	5.70	11.8	6.27	16.4	10.76	27.4	20.06	26.0
Jeyes	7.85	15.3	8.69	23.4	12.83	16.3	15.00	14.1	17.96	14.9
Sturge	3.40	19.3	3.95	19.0	4.56	17.4	4.56	8.2	5.31	15.1
Burrell	—	13.8	3.12	13.1	3.45	13.2	3.71	15.8	3.66	16.0
Holliday	—	3.4	3.45	9.0	3.75	10.0	3.73	8.6	4.38	15.1
Scottish Tar	2.56	9.3	2.90	14.7	3.60	21.4	3.52	21.3	NI	NI
Holt Products	4.26	31.0	4.51	29.8	5.51	34.4	5.51	25.0	6.06	22.0
Anchor Chemicals	6.60	20.8	8.17	22.1	9.21	13.8	7.38	10.1	6.18	15.0

Size quoted in £'000,000

A = Acquired

NI = Not issued at time of data collection

BRITISH OXYGEN - MARKET COMPARISON

Size (£'000,000)

	Sample No.	Median	Mean	S. D.	British Oxygen	Score
1967	16	14.45	18.76	37.6	100.0	2.20
1968	22	8.43	17.80	27.5	134.4	4.25
1969	22	11.02	19.53	28.2	161.3	5.00
1970	21	11.34	20.59	31.7	207.9	5.90
1971	19	13.19	24.23	31.6	234.6	6.65

Return on Capital (%)

	Sample No.	Median	Mean	S. D.	British Oxygen	Score
1967	22	15. 9	16.6	7.94	9.4	- 0.90
1968	22	17. 1	19.0	8.26	11.3	- 0.93
1969	22	16. 3	19.6	10.00	10.6	- 0.90
1970	21	15. 7	17.8	9.36	12.0	- 0.62
1971	19	15. 1	16.8	5.90	12.5	- 0.87

Section C: Observers Interviewed.

	Observers	
	1	2
Position	Head of Planning Secretariate	Financial Planner
Background	Economist	Lawyer/Chartered Accountant
No.years in job	3.5	4
No.years in Company	13	5

Section D: Questionnaire Analysis.

SECTION 1: TRIGGER

1.1. This section is concerned with exploring the systems which were used to monitor Company performance at the time under consideration, and the reasons why initial emphasis was given to acquisition possibilities.

1.2. Table 1 illustrates the observers' perception of the type of monitoring system which was in operation.

Area	Observer 1	Observer 2	Consensus
Objectives	FORMAL REGULAR	FORMAL REGULAR	FORMAL REGULAR
Constraints	FORMAL REGULAR	FORMAL REGULAR	FORMAL REGULAR
Strengths & Weaknesses	FORMAL REGULAR	FORMAL REGULAR	FORMAL REGULAR
Product/market strategy	INFORMAL IRREGULAR	FORMAL REGULAR	X X
Monitor & control system	INFORMAL REGULAR	FORMAL REGULAR	X REGULAR

TABLE 1.

1.3. The Company was involved in a series of acquisitions during the period 1966-70, a high level of agreement existing between observers as to the reasons for this activity -

a) greater encouragement of divisional managers by top executives to 'scan the environment' for possibilities

b) increasing confidence within the Company in its ability to move to the periphery of its own immediate field of knowledge - that of gases.

The Head of Planning, who had been with the Company 5 or 6 years prior to this time, described the background to the change in company attitude, in greater detail -

1. Retirement of Lord Reith from the Board ("he didn't know the difference between B.B.C. and B.O.C.").
2. The development of the planning function leading to an internal company audit.
3. The success of the acquisition of Murex Ltd. which became the nucleus of the new Metals division.

Both observers agreed that the acquisition of Deloro Stellite was due to the pervading atmosphere - the original suggestion coming 3 years earlier from the Managing Director of Canadian Oxygen (B.O.C.).

1.4. Table 2 illustrates the factors which observers consider to be important when designing a system for signalling the need to consider an acquisition.

	OBSERVER 1	OBSERVER 2	CONSENSUS
Financial:			
Liquidity	✓		
Profitability	✓	✓	✓
Gearing	✓	✓	✓
P/E or EPS	✓	✓	✓
Marketing:			
No.of Products			
No.of Markets		✓	
No.of Customers			
Market Size	✓	✓	✓
Market Share	✓	✓	✓
Channels/ outlets	✓		
Production:			
Raw Materials			
Labour		✓	
Processes		✓	
Distribution		✓	
Corporate:			
Management	✓	✓	✓
Image	✓	✓	✓
Legal		✓	
	9	12	7

TABLE 2 - SIGNAL FACTORS

A number of factors are worthy of note:

a) the heavy emphasis in the financial category.

b) the agreement of the need to monitor market size and share, rather than dependence upon a few markets, products or customers. This observation is underlined by later analysis on corporate strengths and weaknesses.

c) the awareness of the importance of corporate identity and skills.

d) the lack of consensus as to the relevance of any item in the production category.

1.5. Although observers were asked to rank the items in order of their importance as signal factors, insufficient agreement existed for a composite order of ranking to be established. The ranking of the consensus items was such that it is possible to establish an order of categories; (see Table 3).

Category	Observer 1 (Head of Planning)	Observer 2 (Financial Planner)
Financial	2	1
Marketing	1	2
Production	-	4
Corporate	3	3

TABLE 3 - CATEGORY RANKS.

This in some part reflects the functions of the two observers.

1.6. Table 4 illustrates the weights perceived by the observers to be attached by the Company to the categories at the time of the acquisition (actual) and their evaluation of what they should have been with the advantage of hindsight (ideal).

The rankings as shown in Table 2 for both observers are inconsistent with their ideal category weights, but, in the case of observer 1, consistent with the actual weights. It is interesting to note that with the benefit of hindsight, observer 1 would upgrade the corporate category almost completely at the expense of marketing.

Category	Observer 1		Observer 2	
	Actual	Ideal	Actual	Ideal
Financial	36	30	33	33
Marketing	45	25	33	33
Production	0	0	13	13
Corporate	19	45	20	20

TABLE 4 - CATEGORY WEIGHTS.

SECTION 2: ELIMINATION

2.1. This section is concerned with the method of internal audit which was used prior to the choice of areas of search for new acquisitions.

2.2. Concept of the Business -

Disagreement existed between observers as to the exact time at which the company considered this question, but both did agree that it was discussed prior to the acquisition of Deloro Stellite. The Financial Planner described the company as being in the 'Gases Business', whereas the Head of Planning took a wider view - "medium technology', being capital and labour intensive with small growth potential". [sic].

2.3. Objectives -

Both observers agreed that no objectives existed prior to the merger activity, being specified and quantified only during the period 1966-1968. However, some disagreement existed as to the identity and importance of these objectives. This is shown in Table 5.

Objective	Observer 1	Observer 2	Consensus
Financial:			
Profitability	1	2	✓
P/E or EPS		1	
Turnover	2		
Marketing:			
Acquisition	5	3	✓
Corporate:			
Industrial relations	3		
Company Image	4		

TABLE 5 - OBJECTIVES RANKED IN ORDER OF THEIR IMPORTANCE.

When given the opportunity to comment upon the choice of objectives, neither observer would have altered the prevailing list.

2.4. Strengths and Weaknesses -

	Strengths			Weaknesses		
	Observer 1	Observer 2	Consensus	Observer 1	Observer 2	Consensus
<u>Financial</u>:						
Profitability						
Gearing		5				
P/E or EPS		4				
Capital employed (small)	2					
<u>Marketing</u>:						
Products	3=	1	✓		2	
Markets	3=					
Customers				2		
<u>Production</u>:						
Processes	3=					
Distribution		2				
<u>Corporate</u>:						
Management	1			1	1	✓
No.existing acquisitions					3	
'Safety'	6	3	✓			

TABLE 6 - STRENGTHS AND WEAKNESSES.

Although substantial disagreement exists between the observers' perception of the Company assessment of its own strengths and weaknesses at that time, neither observer would change that evaluation. A number of points require further clarification:-

a) Observer 1 considered that the management had a 'good constructive style', but was weak in its bureaucratic attitudes and indifference to profitability.

b) This point is in minor conflict with observer 2 who considered the management weakness to manifest itself in two areas -

1) over-optimism in assessing profitability of future sales.
2) lack of a pool of top quality executives to rationalise acquisitions.

c) The last point is consistent with the observers third weakness - the large number of existing acquisitions/projects. This underlines his lack of agreement with the merger policy, which consisted of buying a string of small concerns.

d) Observer 2 considered the 'products' to be a weakness, in that the company was not "opportunistic enough in developing existing products into areas where the financial return would be higher".

2.5. Categories chosen -

Both observers agreed that the company did not consciously choose to concentrate its acquisition activities by matching strengths or attempting to eliminate weaknesses, but rather, as described in Section 1, the categories 'chose themselves'. Observer 1 considered the two fields which emerged (Food and Metals) as being the correct ones, particularly as this lessened the dependence on the low return gas business.

Although this would appear to be in conflict with the observers perception of 'the concept of the business', the comment refers to the sale of gas itself, rather than products which require the use of gas in the manufacturing process. Observer 1, however, disagreed with the choice of categories and considered that the company should have searched for acquisitions in the field of distribution of industrial goods, since this would have been a "vantage point for living Market Research" for existing products, new products, and further acquisition possibilities.

SECTION 3: CONCENTRATION

3.1. This section is concerned with the criteria which were used when making the final decision to buy.

3.2. Both observers agreed that the criteria for the evaluation of Deloro Stellite were not set up for that specific case, but were those against which all potential acquisitions were evaluated around that time. Table 7 illustrates the criteria which were seen to exist by both observers.

Criteria	Observer 1	Observer 2	Consensus
<u>Financial:</u>			
Liquidity			
Profitability	4	1=	✓
P/E or EPS		1=	
Size	6		
<u>Marketing:</u>			
Products		2=	
Markets	1=	2=	✓
Customers	1=		
<u>Production:</u>			
Processes	1=	2=	✓
<u>Corporate:</u>			
'Familiarity'	5		
Chance of buying	7		

TABLE 7 - CRITERIA

i) For the three consensus items, disagreement exists as to their relative importance - the Head of Planning considered that the markets in which the company was operating and the manufacturing processes which it used, were more important than potential profitability: the Financial Planner viewed the situation in reverse.

ii) The criteria of size refers to the requirement that all acquisitions should be small ones - 'a series of nibbles'.

iii) Familiarity with the company, its customers, and processes, was considered by observer 1 to be of prime importance with the benefit of hindsight, so much so that given the opportunity of changing the criteria or the rankings, the only change he would make would be to move 'Familiarity' from number 5 in the rankings to number 1. This statement resulted from the extreme 'indigestion' which the Company suffered after the series of acquisitions.

iv) Observer 2 considered the criteria to be correct and would not change them in any way.

3.3. Both observers agreed that the weights which they perceived the company attached to categories were correct at the time of acquisition. Table 8 illustrates this aspect.

Category	Observer 1	Observer 2
Financial	32	38
Marketing	19	38
Production	10	24
Corporate	39	0

TABLE 8: CRITERIA WEIGHTS.

3.4. The views expressed by both observers are inconsistent with their perception of the criteria used - this is shown in Table 9 where the categories are ranked by the items and by the weights. This is particularly marked in the case of observer 1, where the rankings are almost completely reversed. [Spearmans Rho = -0.85].

Category	Observer 1		Observer 2	
	Items	Weights	Items	Weights
Financial	3	2	1	1=
Marketing	1=	3	2=	1=
Production	1=	4	2=	2
Corporate	4	1	-	-

TABLE 9: CRITERIA RANKS.

SECTION 4 - SUMMARY OF CONSENSUS ON PRE-ACQUISITION PROCEDURE.

4.1. Both observers consider the deceleration of growth of the markets in which the company operates, and its share within those markets, should be a signal for searching for new acquisitions. This is consistent with their view that one of the 'operative criteria' before a decision is made upon a particular possibility, is the market in which that company competes.

4.2. There is little evidence of any synergy-seeking. Indeed, one observer commented that it was to be 'completely discounted'.

4.3. There is a consistent awareness of the need to monitor profitability by both observers, and more particularly, P/E and EPS by the Financial Planner.

4.4. Both observers consider the changing Image of the company to be important as a signal, but do not consider the effect of a possible acquisition upon corporate image, to be a criterion for the final decision.

4.5. There is evidence of substantial satisfaction of the existing system as viewed by each observer.

SECTION 5 - THE BID.

5.1. This section is concerned with the way in which the bid was made.

5.2. There was complete consensus of opinion as to the form in which the actual bid was made - an open declaration to the shareholders/company (an old established family firm), who co-operated by providing data in the form of projected forecasts. It was a cash transaction acceptable to both parties -

a) the family requested this because of the possibility of the Canadian Government introducing a Capital Gains Tax in the near future - (Head of Planning)

b) cash was cheaper to the Parent Company - particularly as it had "gearing in surplus". (Financial Planner).

5.3. The final price did not exceed the pre-bid price, but did exceed the net asset value and the recommended maximum price set upon the deal by the Planning Department. The Board's decision to buy the company despite the inflated price, was based upon the long-term commercial advantage to the Group!

SECTION 6 - POST-MERGER.

6.1. This section concerns the actions taken after the merger occurred, and executive attitude to these actions.

6.2. Complete agreement existed that little action 'took place at all', since the only moves made were

a) to forge links with the parent company via the Managing Director, to both the Metals Division and the Group Planning Department

b) to bring accounting reporting systems into line with Group requirements.

6.3. The action/inaction was planned before negotiations were complete except for the planned move of an Engineering Division to Swindon. As the Company had experienced a failure in similar circumstances, this decision was reversed on further consideration.

6.4. Both observers agreed that the decisions made were correct, since the company was in a particularly specialised and successful business, and that the subsequent anticipated financial performance was realised. (Financial Planner). The Head of Planning attributed the success to 'a well thought out, sensible approach drawing from the lessons learned', to the familiarity of the group with Deloro Stellite and to the fact that the Managing Director, having recognised that the company had become too big for him, was willing to help and co-operate.

6.5. When asked what measures were appropriate in the evaluation of acquisition success, the Financial Planner considered this to be any new business which contributed to EPS (i.e. high sales and high margins) whilst maintaining growth in the existing business.

The Head of Planning was less concerned with financial aspects and would use two criteria:

1. "How well the acquisition fits into the company in the long term".
2. "How much it enables you to learn about the long term vision".

BACKGROUND

During the latter part of 1969, the company was changed from a Holding Company to the Burton Group and a new executive team was appointed to lead the Group. At that time the Group consisted of six major operating divisions :

Montague Burton Retail
Jackson the Tailor
Burton France
Montague Burton Manufacturing
Peter Robinson
Browns of Chester

The two acquisitions discussed are Evans Outsize (acquired January 1971) and Ryman (acquired April 1971)

OBSERVERS INTERVIEWED

OBSERVER	POSITION	NUMBER OF YEARS	
		In Job	In Company
1	Financial Director	3	5
2	Chief Executive	3	3
3	Chief Executive(Evans)	2	2

The Chief Executive of Evans was mainly concerned with post-acquisition action, although he was asked for his perception of and opinions on pre-acquisition decisions.

THE BURTON GROUP - FINANCIAL ANALYSIS

(£'000)	1967	1968	1969	1970	1971
Turnover	60, 973	65, 605	68, 309	70, 264	80, 049
Net Worth	53, 191	54, 475	56, 179	57, 113	49, 569
Net Assets	65, 101	66, 733	68, 168	68, 714	74, 772
PBIT	5, 475	7, 008	7, 753	7, 105	8, 653
PAT	2, 987	3, 690	3, 897	3, 586	4, 531
No. Shares ('000)	35, 812	35, 812	35, 812	35, 834	36, 468
No. Employees	NA	25, 060	25, 118	25, 302	26, 902
Gross Margin	9. 0	10. 7	11. 3	10. 1	10. 8
Net Margin	4. 9	5. 6	5. 7	5. 1	5. 7
Return on Net Assets	8. 4	10. 5	11. 4	10. 3	11. 6
Return on Net Worth	5. 6	6. 8	6. 9	6. 3	9. 2
Asset Turnover	0. 94	0. 98	1. 0	1. 02	1. 07
Current Ratio	1. 24	1. 42	1. 42	1. 34	1. 44
Acid Test	0. 55	0. 63	0. 63	0. 60	0. 63
Debtors (days)	58	51	59	65	72
Gearing (%)	14. 0	14. 5	13. 5	17. 0	34. 0
Dividend Cover	1. 4	1. 7	1. 8	1. 7	2. 1
Turnover per employee (£)	NA	2, 620	1, 790	2, 680	2, 980
Net assets per share (£)	1. 81	1. 86	1. 90	1. 92	2. 05
Earnings per share (£)	7. 0	9. 0	9. 4	9. 0	12. 4

THE BURTON GROUP - MARKET DATA

BOT 82/2 SIC 821,831,832

	1967		1968		1969		1970		1971	
	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI
Great Universal	-	24.4	357. 1	24. 0	382. 2	22.9	424. 6	22.5	441. 1	21.6
United Drapery	99.41	16.5	105.89	16. 1	116.26	17.6	123.53	16.1	132.86	17.0
Fraser (House of)	99.40	12.5	101.17	13. 6	109.28	14.4	117.89	11.2	140.18	13.3
W H Smith	85.35	13.1	91.60	12. 3	100.99	18.1	106.81	14.0	117.16	15.0
Freemans (London)	40.50	20.2	39.71	16.7	41.81	18.8	41.83	17.0	42.09	17.9
Stylo Shoes	6.91	6.2	7.29	5. 3	8.28	7.3	8.54	6.0	8.59	1.3
Bentalls	12.90	10.4	13.59	11. 2	14.60	11.2	14.77	11.1	15.76	11.5
Army & Navy	10.76	9.2	11.09	10.2	12.15	10.9	11.74	8.9	13.56	13.3
Halfords	12.16	16.2	14.33	18. 7	A	A	A	A	A	A
Foster Bros Clothing	6.94	18.2	7.79	17. 8	9.14	23.7	11.09	24.3	17.27	18.4
Telefusion	6.01	14.6	7.36	16. 9	8.71	16.2	9.37	15.8	10.67	16.4
Swears & Wells	-	12.9	5.17	13. 5	5.15	14.4	A	A	A	A
John Peters	8.37	21.3	8.92	27.5	10.74	24.2	12.06	19.4	13.41	18.3
New Day Holdings	7.23	7.2	9.31	9.2	8.55	8.8	9.13	11.0	9.15	9.0
Travis & Arnold	8.93	11.3	13.43	14.5	14.35	15.3	14.26	12.1	15.57	17.9
Loyds Retailers	-	1.5	5.04	Loss	6.71	8.0	11.47	10.2	NI	NI
Moss Bros.	3.19	10. 0	3.26	9.2	3.55	10.5	3.52	10.0	3.56	11.4
Colmore Investment	6.73	3.7	8.51	6.2	7.93	2.7	8.23	6.1	8.63	7.1
Rossleigh	8.16	13.8	9.17	13.9	11.71	11.3	A	A	A	A
Chiesman's	4.76	12.0	4.77	13.5	4.91	12.7	5.18	14.3	A	A
Martin Walter	7.37	19.7	8.45	22.0	8.25	13.9	8.57	13.7	11.16	20.2
Gamage	5.34	17.5	5.39	19.6	5.47	17.7	5.19	9.7	A	A
Elys (Wimbledon)	1.78	-	1.80	6.3	1.94	6.0	2.05	8.1	2.38	9.0
Blanes	-	40.6	6.15	39.3	7.46	36. 2	6.64	15.6	5.09	20.6
Millets	-	6.0	1.79	4.7	1.90	2.5	1.97	Loss	A	A
Salisburys	-	7.6	3.30	7.1	A	A	A	A	A	A
Grant Brothers	3.50	-	3.60	21.6	3.65	16.4	3.71	16.8	3.83	13.2
Spink and Son	1.60	19.5	2.31	29.8	2.45	25.6	2.16	13.7	3.01	17.3
Quick (H.J)	8.92	7.9	10.04	11.3	9.52	9.9	12.08	15.8	12.55	11.8
Emms (Theodore)	-	24.5	2.48	25.2	2.59	21.8	2.85	17.7	NI	NI
Cuthbert (R.G)	2. 0	21.6	2.07	20.9	1.98	22.4	2.11	17.7	2.05	Loss
Wassall (J.W)	0.96	-	0.91	19.1	0.92	16.7	0.90	18.5	0.91	19.3

A = Acquired

NI = Not issued at date of analysis

THE BURTON GROUP - MARKET ANALYSIS

Size (£'000) *

Year	Sample No.	Median	Mean	S.D.	Burton Group	Score
1967	25	6.91	18.5	29.7	60.97	+ 1.43
1968	31	8.45	16.6	28.5	65.60	+ 1.37
1969	29	8.25	18.6	32.4	68.31	+ 1.23
1970	27	8.57	20.9	35.2	70.26	+ 1.40
1971	22	10.91	26.8	42.6	80.05	+ 1.25

* This table excludes data for Great Universal Stores.

Role (%)

Year	Sample No.	Median	Mean	S.D.	Burton Group	Score
1967	29	13.1	14.5	7.9	8.4	- 0.77
1968	32	14.2	15.5	8.3	10.5	- 0.60
1969	30	14.8	15.3	7.2	11.4	- 0.54
1970	28	13.8	13.5	5.3	10.3	- 0.60
1971	23	13.3	14.0	5.7	11.6	- 0.42

SECTION 1 : TRIGGER

1.1

Three years before the time of the interviews, a completely new top management team had been created to lead the organisation ; this team, in turn, recruited approximately 100 new managers.

Both observers explained that from that time, a completely formal and regular system for reviewing corporate performance was being developed and introduced, covering such areas as -

Objective setting
Scanning of environmental constraints
Evaluation of corporate strengths and weaknesses
Product / Market strategy
Monitor and control systems

1.2

Observer 1 explained that this system, in its development stages, had signalled the need for the company to consider acquisition ; this is in contrast to the perception of Observer 2. The exact nature of the 'trigger factors' are shown in Table 1 :

	Observer 1	Observer 2	Consensus (=2/2)
Financial :			
Profitability	3=		
Low gearing relative to potential	1		
P/E	3=		
Marketing :			
Static growth in products	4=		
Limited markets		1	
Static growth in markets	4=	3	2
Corporate :			
Low trading utilisation of property	2	2	1

TABLE 1 : RANKING OF SIGNAL FACTORS

Although there is some disagreement , the two factors on which there is agreement were also perceived by Observer 3 as being the prime acquisition motivating factors. It is interesting to note that Observer 1, who described more financial signals than Observer 2, was the Financial Director.

1.3

Both Observers considered, with the benefit of hindsight, that the factors which they perceived to be important had been accurately recognised at the time.

SECTION 2 : ELIMINATION

2.1

Both executives explained that the signals previously described focussed attention on a specific category of company, viz., "Retailing businesses with potential for rapid expansion using the excess property which the company at the time rented out to other organisations". This is consistent with the criteria which the company later applied to both Evans Outsize and Ryman.

2.2

The high level of agreement was maintained when executives explained that a complete internal audit covering the following questions took place prior to each acquisition :

1 Did you consider the concept of the Business ?
2 Did you assess corporate objectives ?
3 Did you appraise corporate strengths and weaknesses ?
4 Did you consciously choose to concentrate your acquisition activities in specific company categories by matching strengths or attempting to eliminate weaknesses as you assessed them ? That is, did you seek synergy ?

2.3

Concept of the Business

The company has been correctly classified in the "retail business", although each executive qualified this in a different way :

Observer 1 : Retailers with property interests

Observer 2 : Specialist retailers excluding food.

Observer 3 did not agree with either of his colleagues. He perceived that the executives concerned had decided that the company was simply in the Retail

Business and that they should have qualified this by only considering growth in High Street Retail Business ; this analysis would have excluded the acquisition of Ryman.

2.4

As in the previous section, Observer 2 perceived more prime company objectives to exist than Observer 1. Both declined to rank the items specified, although Observer 2 classified them into categories of long and short term. (See Table 2). In each case, the executives considered that the areas in which objectives were specified were the correct ones with the benefit of hindsight.

	Observer 1	Observer 2	Consensus (=2/2)
Financial :			
Liquidity	√ L		
Profitability	√ S	√	√
Gearing	√ L		
Growth	√ L		
Marketing :			
Maintain market share in existing markets	√ S		
Product Development	√ S		
Product Rationalisation	√ S		
Acquisition	√ S		
Customer Service		√	
Corporate :			
Image of businesses within group	√ L		
Community Service		√	
Management Improvement	√ S		

TABLE 2 : PRIME COMPANY OBJECTIVES

Note : L = Long Term, S = Short Term

Although, there is substantial disagreement between the two observers, in each case their answers throughout the questionnaire are internally consistent.

2.5

In contrast to the previous section, agreement did exist between the two observers as to the result of the analysis of the major strengths and weaknesses of the group. See Table 3.

	STRENGTHS			WEAKNESSES		
	Observer 1	Obs. 2	Consensus	Observer 1	Obs. 2	Consensus
Financial :						
Gearing Potential	1=	1=	1=			
Profitability				1=		
Marketing :						
Buying Power	1=					
Out of date shops					2	
Corporate :						
National property coverage	1=	1=	1=			
Image	1=	2	2			
Control System				1=		
Management				1=	1	√
Organisation structure				1=		

TABLE 3 : CORPORATE STRENGTHS AND WEAKNESSES

The good company image as described by both executives was reflected in strong customer loyalty. Observer 2 described the organisation which had been in operation prior to the introduction of the new management team as a 'washing line' and as such , completely unworkable.

SECTION 3 : CONCENTRATION

3.1

As explained by both executives in Section 2, the search for acquisition possibilities concentrated on an eventual synergistic effect. Thus, they were looking for retailing companies with high profitability and good growth potential, reflected in less than national coverage, which would utilise the property owned by the group more effectively. This also reflects the perception of Observer 3 as shown in Table 4.

	Observer 1	Observer 2	Observer 3	Consensus* (= $\frac{2}{3}$)
Financial :				
Profitability	1=	1=	3	√
Marketing :				
Less than national coverage	1=	1=	2	√
Growth market	1=	1=	1	√
Corporate :				
Good management	1=			
Distinct Image	1=			
Good control system	1=			

TABLE 4 : RANKING OF CRITERIA

* Insufficient agreement to establish an order of ranking. (Kendalls coefficient of concordance = 0.14, X^2 = 0.67 5% SL = 5.99)

In each case, observers felt that these were the correct criteria at that time, although as explained previously, Observer 3 felt that the "shopping list" should have been limited to 'high street' retailers. This would have excluded the acquisition of Ryman which is in a business that requires it's outlets to be near office blocks rather than in the 'high street'.

SECTION 4

4.1

In the case of both Rymans and Evans a direct approach was made to the owners, although in the latter case this was after an initial meeting through the Rothschild Merchant Bank. All executives felt that a direct approach to the owners was the correct method to adopt - "we want to know if the chemistry is right" (Observer 1)

4.2

For Evans, the bid took the form of some Burton A shares and some $9\frac{1}{4}\%$ unsecured loan stock and for Ryman loan stock. In each case, the owners were not interested in cash as this would require them to pay capital gains tax.

4.3

All executives agreed that a premium was paid over both pre-bid market price and net asset value for each of the two acquisitions discussed. Some dissent between Observers 1 and 2 was noted when they were asked if it had been necessary for Burton to exceed their maximum price. Table 5 illustrates.

	Observer 1	Observer 2	Consensus (=2/2)
Evans Outsize	NO	NO	NO
Ryman - Conran	YES	NO	X

TABLE 5 : WAS IT NECESSARY TO RAISE THE MAXIMUM PRICE ?

SECTION 5 : POST ACQUISITION

5.1

Consistent with the reasons for acquisition as described in previous sections and the re-organisation and development of a formal planning system, executives all described the following post-acquisition changes for both Ryman and Evans Outsize.

Asset Structure :	the property interestes of the group were put into a separate division, but otherwise the companies continued to trade in their own right as separate units.
Marketing :	extra shops were made available, particularly in the case of Evans.
Organisation :	the organisation structure of both companies was changed in order to bring them into line with the new structure which was being introduced into the Group as a whole. The only management changes which took place were at the top level in both companies, the Chief Executive of Evans being moved into the Group.
Control Systems :	the control systems for the whole group were rationalised and strengthened. Observer 3 explained that one of the major attractions of Evans to the Burton executive was the sophisticated computerised stock control methods which the company used. This is consistent with the criteria for acquisition described by Observer 1.

5.2

The high level of agreement continued when executives were asked to describe the extent to which action had been planned prior to acquisition. The only dissenting voice was that of Observer 1 who considered that the decision to re-organise the asset structure was not taken until after the acquisition of Evans Outsize. The list below shows the consensus answers :

Asset structure	-	Planned
Marketing	-	Planned
Organisation structure	-	Not planned
Control systems	-	Planned

5.3

In each case, executives felt that action taken had been correct although Rymans had not been as efficient a company as was expected, and this had resulted in the Burton management devoting more time to the company than had been anticipated. For this reason, plus the fact that a new group of people were learning to work together as a team and that a substantial amount of re organisation was taking place in the Group as a whole, each acquisition took longer to digest than had been originally anticipated.

5.4

All executives agreed that the two acquisitions had been successful, although Ryman's less so than Evans. This was due to "previously unknown problems mainly in the accounting and administrative areas". The criteria which executives used to describe success were :

Observer 1	"the confirmation of profit growth which makes the spending of the money worthwhile"
Observer 2	"it has given the company the opportunity to invest money profitably."

Observer 3 "it enabled Burton to increase profitability and, by diversifying, present a new fact to the public."

BACKGROUND

The principle activities of the Group come under five main headings, viz :

Calor Gas	Sale of Calor Gas and appliances in U K
Calor Engineering	Engineering services for the group and third parties.
Calor Agriculture	Marketing of anhydrous ammonia and other fertilisers.
Calor International	All overseas interests.
Calorkosangas	Sale of Calor Gas and appliances in Ireland.

The acquisitions discussed are :

(1) Direct Nitrogen acquired by Calor Agriculture in June 1971.

(2) L. P. G. Ltd acquired by Calor, Ireland, in June 1971 and named Kosangas in this report.

OBSERVERS INTERVIEWED

Observer	Position	No. of Years	
		In Job	In Company
1	Managing Director - Calor Gas Ireland.	2½	2½
2	General Manager - Agricultural Division	7	7
3	Managing Director - Calor International	7	10
4	Managing Director - Calor Gas	1	2

CALOR GAS - FINANCIAL ANALYSIS

	1967	1968	1969	1970	1971
Turnover	15,448	18,557	19,868	22,784	26,024
Net Worth	10,653	10,965	10,852	11,135	12,793
Net Assets	13,816	14,134	13,926	16,432	18,013
PBIT	842	1,696	1,615	2,103	2,604
PAT	426	628	662	795	1,191
No. Shares ('000)	27,900	27,900	27,900	32,000	32,000
No. Employees	---	3,208	3,242	3,409	3,287
Gross Margin	5.4	9.1	8.1	9.2	10.0
Net Margin	2.8	3.4	3.3	3.5	4.6
Return on Net Assets	6.1	12.0	11.6	12.8	14.5
Return on Net Worth	5.9	10.8	11.8	13.8	16.0
Asset Turnover	1.12	1.32	1.43	1.39	1.44
Current Ratio	1.18	1.14	1.07	1.46	1.45
Acid Test	0.84	0.92	0.85	1.14	1.12
Debtors (days)	97	113	118	106	123
Gearing	22.6	22.4	21.8	31.8	28.8
Dividend Cover	0.94	1.12	1.15	1.26	1.59
Turnover per employee	---	5,800	6,150	6,700	7,900
Net Assets per share (£)	50	50	50	51	56
Earnings per Share (p)	1.5	2.2	2.4	2.5	3.7

CALOR GAS - MARKET DATA BOT 81/2 sic 831/1

	1967		1968		1969		1970		1971	
	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI
Powell Duffryn	—	7.7	79.06	10.8	88.42	11.8	98.65	10.6	118.72	11.1
Charrington Gardner	58.68	11.1	62.01	15.6	84.67	14.2	81.02	12.6	89.63	15.5
Lunt Comley & Pitt	—	20.2	38.92	11.8	36.85	19.3	37.52	17.4	A	A
Cawoods	66.28	20.4	67.55	24.1	73.03	25.4	70.08	20.6	79.51	25.3
Miles Druce	18.27	11.3	26.41	9.8	35.92	19.1	47.18	23.8	NI	NI
Smith (E & HP)	9.86	13.2	8.55	9.2	8.24	6.6	8.97	5.8	6.19	5.5
Millars Timber	9.99	10.4	10.79	11.7	A	A	A	A	A	A
Rexmore	—	27.6	10.72	29.5	13.57	25.0	18.09	21.6	20.46	20.5
Ellis & Everard	13.17	8.9	13.96	14.3	14.44	11.3	14.87	10.0	13.43	17.0
Kennedys (Builders and Merchants)	—	14.0	5.15	13.8	5.46	10.7	5.99	12.8	8.20	19.0
Phoenix Timber	10.00	10.0	10.81	13.3	10.73	9.4	11.80	Loss	12.09	9.4
Lye Trading Co.	4.70	15.0	6.24	19.0	6.69	23.3	8.28	25.7	10.63	14.8
Erith & Co.	7.21	19.6	7.54	15.0	6.73	10.3	6.45	14.2	NI	NI
Henderson (J.W.)	8.77	22.0	8.97	23.3	8.72	19.7	8.04	12.0	8.72	21.3
Bland (John)	—	7.2	5.81	13.4	5.69	3.7	5.49	Loss	5.14	Loss
Harris (M.P)	3.82	20.2	4.30	23.2	4.27	16.1	4.81	21.0	6.08	26.8
Parker Winder and Achurch	3.19	9.2	3.60	11.5	3.36	10.6	NI	NI	NI	NI
Webbs (Edward)& Sns	—	1.5	2.29	7.2	1.97	Loss	NA	4.4	NI	NI
Johnson Gibbons	6.59	6.0	6.37	5.2	6.25	3.9	6.48	8.3	*	8.4
Storer (Wm. T)	—	14.9	3.10	18.7	3.70	21.0	A	A	A	A
Renwick, Wilton & Dobson	19.20	—	19.12	13.1	**	12.2	**	18.0	**	29.3
Miln (david)	—	9.9	1.60	14.0	1.72	16.7	1.88	21.9	A	A
Stott and Smith	—	1.4	1.46	8.7	1.43	Loss	1.42	Loss	A	A
Burndent Investments	1.81	21.6	2.46	28.4	2.77	25.2	3.08	24.1	3.99	23.4
Greenman	—	12.6	—	14.4	—	7.7	A	A	A	A
Lennon Bros	5.47	—	5.39	11.8	5.89	9.5	6.08	8.1	6.07	7.6
D M Holdings	—	Loss	—	1.3	—	4.4	—	7.2	NI	NI

* changed accounting year
** excludes Western Fuel Co.
NA = Not available
NI = Not issued at time of analysis
A = Acquired

CALOR GAS - MARKET ANALYSIS

SIZE (£'000,000)

Year	Sample No.	Median	Mean	S.D.	Calor Gas	Score
1967	16	9.93	15.3	18.7	15.4	0.00
1968	25	6.37	16.5	21.8	18.6	+0.10
1969	23	6.25	18.0	26.7	19.9	+0.07
1970	20	8.16	22.3	28.9	22.8	0.00
1971	14	9.76	27.6	34.3	26.0	- 0.05

ROLE (%)

Year	Sample No.	Median	Mean	S.D.	Calor Gas	Score
1967	25	11.2	12.6	6.6	6.1	- 0.98
1968	27	13.4	14.5	6.75	12.0	- 0.37
1969	26	11.0	13.0	7.4	11.6	- 0.19
1970	23	10.6	13.0	8.2	12.8	- 0.02
1971	16	15.2	16.0	8.0	14.5	- 0.19

SECTION 1 : TRIGGER

1.1

When asked to describe the type of planning system in operation at the time immediately prior to the two acquisitions discussed, all executives agreed that a formal, regular financial monitoring system was in use and that no system for evaluating company strengths and weaknesses, or product-market strategy, existed.

There was substantial disagreement about the existence of any monitoring of company objectives or external constraints. This is shown in Table 1.

OBSERVER	OBJECTIVES		CONSTRAINTS	
1	Informal	Irregular	Informal	Irregular
2	NO SYSTEM		NO SYSTEM	
3	Informal	Regular	Informal	Regular
4	NO SYSTEM		Informal	Regular
Consensus (= $\frac{3}{4}$)	No consensus	No consensus	Informal	No consensus

TABLE 1 : SYSTEM FOR EVALUATING OBJECTIVES AND CONSTRAINTS

1.2

Both acquisitions discussed were seen by executives as defensive measures in markets which were dominated by two companies. Despite being aware that Kosangas had been "dressed up for sale" (Observer 1) by the previous owner, the acquisition was completed in view of the potential threat posed by it being purchased by an American oil company, thus establishing an Irish operational base, and competing with Calor Gas in the United Kingdom market (Observer 4).

Direct Nitrogen was owned by B. P. who were "not very happy with the business" (Observer 4). Although agreement existed amongst executives as to the nature of the acquisitions, disagreement existed when they were asked to describe the reason for Calor Gas eventually deciding to make bids for the companies. Tables 2 and 3 show the answers of executives for both Kosangas and Direct Nitrogen.

	Observer 1	Observer 3	Observer 4	Consensus ($=\frac{2}{3}$)
Financial :				
Liquidity			√ 1=	
Marketing :				
Markets				
Market Share	√ 1	√	√ 2	√ *
Corporate :				
Management	√ 2		√ 1=	√ *

TABLE 2 : SIGNAL FACTORS FOR KOZANGAS

* Insufficient agreement to establish an order of ranking.

1.3

Calor Gas had itself been acquired by IC Gas in 1969, and both Observers 1 and 3 stated that the resultant change in management opened the way for the acquisitions -

Observer 1 - "I was appointed to be responsible for Ireland and the management was moved from England."

Observer 2 - "IC Gas contributed a new management style in the form of Mr Colebrook plus financial backing."

	Observer 2	Observer 3	Observer 4	Consensus $(=\frac{2}{3})$
Financial :				
Liquidity			√ 1	
Profitability	√ 2			
Size	√ 3			
Marketing :				
Geographic location of markets	√ 3			
Market Share			√ 2	
Corporate :				
Management	√ 1		√ 1	√ 1
Approach from another company.		√		

TABLE 3 : DIRECT NITROGEN SIGNAL FACTORS

1.4

It is worth noting that Observer 3 perceived the original approach to have come from B. P. rather than from Calor Gas as described by Observers 2 and 4. Observer 2 considered that the introduction of new management meant that it was necessary to "crystallise the thinking within the company towards an unprofitable division in a capital-hungry business."

1.5

Although executives disagreed on the signal factors, each felt, with the benefit of hindsight, that his own perception was correct.

SECTION TWO : ELIMINATION

2.1

Because of the defensive nature of each acquisition and the lack of competition in the two markets, there was no possible choice of companies to acquire - "we were just plugging up holes" (Observer 3). However, Observer 2 did consider that the company had deliberately considered the type of acquisition needed and had decided to scan "agricultural companies" rather than "fertiliser companies". This perception is consistent with his description of the signal in Section 1 which does not automatically focus upon a specific company.

2.2

The extent of the internal company audit which was carried out prior to a final decision varied in each case. Table 4 illustrates :

	KOSANGAS				DIRECT NITROGEN			
	1	3	4	Consensus ($=\frac{2}{3}$)	2	3	4	Consensus ($=\frac{2}{3}$)
Consider concept of the Business ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Assess company objectives ?	Yes	Yes	No	Yes	No	Yes	No	Yes
Evaluate strengths and weaknesses ?	Yes	Yes	No	Yes	Yes	No	No	No
Seek synergy ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

TABLE 4 : COMPANY AUDIT

2.3

Concept of the Business

Although executives all agreed that this question was constantly under review and had been discussed prior to each acquisition, disagreement did exist as to the final conclusion. See Table 5.

OBSERVER	CONCEPT OF THE BUSINESS
1	Liquified Pure Gas
2	Energy
3	Fuel and Energy (prime) leading to Gaseous Fertilisers.
4	Liquified Pure Gas Distributors

TABLE 5 : CONCEPT OF THE BUSINESS

However, each considered his own perception to be the correct company identity at that time. It is interesting to note that some executives did not seem quite clear on how the ammonia division fitted with their description, although all viewed the division as being a necessary and important part of the company.

2.4

Company Objectives

Only Observers 1 and 3 perceived any prime company objectives to be specified prior to the acquisitions, Observer 1 explaining these to be implicit rather than explicit. Table 6 shows the areas mentioned.

OBJECTIVE	Observer 1	Observer 3	Consensus
Financial :			
Profitability	1=	1	1
Marketing :			
Turnover	1=	2	2
Penetration	1=		

TABLE 6 : RANKING OF PRIME COMPANY OBJECTIVES

When asked if their perception was correct with the benefit of hindsight neither observer would change anything. Both Observers 2 and 4 felt that it would have helped the company if prime objectives had been specified at that time - Observer 2 commented that the "interest in Gas and Transport should have been specified". Table 7 shows the disagreement amongst observers as to the particular area under the heading of marketing in which the company should concentrate.

OBJECTIVES	OBSERVERS				CONSENSUS
	1	2	3	4	$(=\frac{3}{4})$
Financial :					
Profitability	1=	2	1	1	✓
Marketing :					
Turnover	1=		2		
Penetration	1=				
Product Development		1=			
Market Development		1=		2=	
Diversification				2=	

TABLE 7 : RANKING OF PRIME COMPANY OBJECTIVES

2.5

Strengths and Weaknesses

The two executives directly concerned with the acquisitions discussed, described analyses which were directly related to their own divisions rather than to Calor Gas as a whole. Observer 3 agreed that an analysis had been carried out prior to the acquisition of Kosangas, but not to that of Direct Nitrogen. In the latter case, the amount of money involved was so small that it did not warrant lengthy consideration. Table 8 shows observers' perception of the final evaluation. Observer 4 explained that, because of the nature of the two acquisitions, such an analysis was unnecessary.

	STRENGTHS			WEAKNESSES		
	KOSANGAS		Direct Nitrogen : Obs. 2	KOSANGAS		Direct Nitrogen : Obs. 2
	observer 1	observer 3		observer 1	observer 3	
Financial :						
Liquidity		1				
Marketing :						
Products	2=					2=
Markets						1
Market Share				2=	1	
Marketing Effectiveness					2	2=
Production :						
Processes	2=					
Distribution		2				
Corporate :						
Management	1			1		2=
Image			1			
Poor cash control				2=		

TABLE 8 : RANKING OF STRENGTHS AND WEAKNESSES

2.6

Total disagreement existed as to the prevailing areas of strength within the company. Observer 1 viewed management as "experienced and loyal", although somewhat "self-satisfied" ; Observer 3 thought the major strength of the company was the increase in liquidity brought about by support from the new parent body. The "good company image and name was a major factor in enabling the ammonia division to achieve credibility with customers" - Observer 2 .

2.7

When describing company weakness, the answers of Observer 2 are consistent with his answers to previous questions, particularly the field of objective-setting. He viewed the dominance of gas and transport within the company to perpetuate the "myth of Calor" thus smothering the ammonia business - an area with high potential.

2.8

When asked if any major strengths or weaknesses were not recognised at the time of analysis, Observer 1 would add the strength of prevailing good industrial relations in Ireland. This factor was also mentioned by executives as being ultimately the main reason for disruption after acquisition. Observer 2 added the lack of cash control to his list of weaknesses, but did point out that had this been recognised at the time, it was unlikely that the acquisition of Direct Nitrogen would have been made - the Group would have missed the opportunity of turning an unprofitable activity into a profitable one.

SECTION 3 : CONCENTRATION

3.1

All except the Financial Director perceived a large number of areas to have been evaluated prior to each acquisition, and, with the benefit of hindsight, each executive considered his perception to have been correct.

3.2

Table 9 shows the areas in which criteria were specified prior to the decision to buy Kozangas. It is interesting to note that Observers 3 and 4 specified fewer areas than Observer 1, the executive responsible for Ireland.

CRITERIA	Observer 1	Observer 3	Observer 4	Consensus * $(=\frac{2}{3})$
Financial				
Effect on profitability	2=	1	2	√
Cost				
Marketing				
Type of products	2=			
Markets	2=			
Market Size			1=	
Market Share		2	1=	√
Channels	1=			
Customers			1=	
Production				
Raw material purchasing power	1=		3	√
Labour availability	1=			
Distribution	1=			
Corporate				
Management	2=			

TABLE 9 : KOSANGAS CRITERIA

* Insufficient agreement existed to establish an order of ranking.

3.3

The level of agreement on the criteria used prior to the acquisition of Direct Nitrogen was very low, there being consensus on only one item, that of profitability : however, in total ten items were mentioned by executives. Table 10 illustrates this point.

CRITERIA	Observer 2	Observer 3	Observer 4	Consensus
Financial				
Effect on profitability	2=	1	3	√
Low cost			4	
Marketing				
Type of products	2=			
Structure of markets	2=			
Market Size			1=	
Market Share	1			
Channels	2=			
Production				
Raw material purchasing power			2	
Distribution	2=			
Corporate				
Management *			1=	

TABLE 10 : DIRECT NITROGEN CRITERIA

* Poor management in Direct Nitrogen, who were not taking full advantage of opportunities.

3.4

Observer 4 commented that with the benefit of hindsight, he thought that insufficient analysis of the worth of Kozangas to Calor Gas and to other prospective buyers had been carried out. He felt that, although this would not have altered the final decision, it may have enabled Calor Gas to reduce the price somewhat.

SECTION 4 : THE BID

4.1

All executives agreed that a direct approach had been made to the Managing Director and major shareholder of Kosangas, and that negotiations were completed by a cash transaction. Answers varied when asked why cash had been used :

Observer 1	-	Calor had plenty of cash
Observer 3	-	It was the simplest way
Observer 4	-	The Managing Director wanted cash.

A considerable premium was paid over the net asset value and it was necessary to raise the maximum price which had been set by Calor executives.

4.2

In the case of Direct Nitrogen, Observer 2 described the initial approach to come from Calor Gas : this is in direct contrast with the answers from the other two executives who described the approach being made by B. P. executives.

Cash was also paid in this case :

Observer 2	-	IC Gas shares were not very interesting and B. P. was short of cash
Observer 3	-	It was the simplest way
Observer 4	-	We had no option as the amount involved was trivial in B. P. terms.

In this case, Calor did not pay a premium on net asset value, nor was it necessary to raise the maximum price.

4.3

With the reservation made by Observer 4, seen in Section 3.4., executives felt that with the benefit of hindsight, the methods used in the negotiations for each company were the right ones at the time.

SECTION 5 : POST MERGER

5.1

Executives agreed in broad outline on the action taken after acquisition, the two executives directly concerned in each case giving more detailed explanations.

5.2

The action taken in absorbing Kosangas into the corporate structure is described below. A plan of action had been prepared and this was carried out with some modifications made necessary by unexpected union problems.

Asset Structure :	No changes took place in this area.
Marketing :	Initially, the two companies were run separately, but, at the time of the interviews, the two sales-forces had been combined, and the company has embarked on a "new, single unified marketing policy which blends the best of both" (Observer 4). Observer 1 explained that this approach had been chosen in an attempt to "ameliorate the disruptive force of the merger", and the major objective of the company at the time of interview was to create and build a new corporate identity in CalorKosangas.
Products :	In the domestic market, the separate brands were continued in an attempt to keep brand loyalty - this was found unecessary in the industrial market. (Observer 1). The only major product change was a rationalisation of cylinder sizes and colours.
Production :	Little action was possible in this area due to the particular nature of the business, except in the logistics field where rationalisation took place.

Corporate : In an attempt to build a unified group in Ireland, the company was renamed Calorkosangas.

Organisation : The organisation structure was totally changed, both companies being merged into one with a new Managing Director located in Ireland. However, no redundancy took place, being partially due to strong union action from Kosangas employees. All executives explained that part of the "dressing up for sale" process that the previous owner had indulged in, was a "buying-off" of the unions.

Control Systems : Calor Gas was in the process of re-designing its monitoring and control systems, and Calorkosangas was brought into line with the rest of the Group.

5.3

All executives considered that the action taken was correct, although it would take longer than originally anticipated to complete the rationalisation process. The blame for this was laid at the feet of the unions.

5.4

Calor Gas executives had set up a plan for absorbing Direct Nitrogen into the Ammonia Division. In broad outline, the plan was carried out as described below :

Asset Structure : Direct Nitrogen had a £0.75 M tax loss of which Calor Gas wished to take advantage, and therefore, for accounting purposes, the company remained a separate entity.

Marketing : Direct Nitrogen used a system of distributors for selling their products in contrast to the method adopted by Calor Gas, that of direct selling to customers. It was decided to keep both systems thus maintaining the separate sales forces, and was therefore necessary to convince distributors that the two arms of the company would not compete with each other. The General Manager of the division considered that this had been achieved.

Products : No change was possible in this area - "we are selling ammonia" (Observer 4).

Corporate : Observer 2 explained that the decision to keep the acquired company separate for tax purposes was a late decision, and in operational management terms it had been completely absorbed. All the original top management of Direct Nitrogen stayed with the original parent company B. P.

Organisation : Direct Nitrogen was completely absorbed into the 'new' Agriculture Division and with the substantial geographic increase in the markets served it was necessary to create a Regional Management structure. There appears to be some conflict here between the apparently totally integrated nature of the new structure as described by all observers, and the two separate sales-forces described by Observer 2.

Control Systems : The new Calor Gas accounting systems were introduced into the new Agriculture Division.

5.5

As in the case of the Kozangas acquisition, executives felt, with the benefit of hindsight, that the action taken at the time of acquisition was correct. Observers 3 and 4 felt that the plan had been carried out within the time allowed, but Observer 2, the General Manager of the new division was of the opinion that it had taken longer than expected, "because we had not allowed for the people factor."

5.6

Observers 3 and 4 considered that both acquisitions had been successful, but the two executives responsible for the new areas of business were more circumspect, for each explained that "it will come right eventually." The criteria used by each executive to measure success varied, and are described below :

Kozangas

Observer 1 : "The two criteria are financial relative to pre-acquisition forecaset and the extent to which the people in the combined group are working to a common purpose."

Observer 3 : "The monopolistic position of Calorkozangas in Ireland will make the whole market more profitable and will protect Calor Gas from attack in the U.K. market."

Observer 4 : This executive considered that the acquisition had not been a total success for the following reasons :

(a) "Calor Gas underestimated the problems of amalgamation, particularly in the area of Industrial Relations."

(b) "Calor Gas assumed that all the information which they had been given during the negotiation stage was correct", but subsequently found this not to be the case.

(c) "Calor Gas did not anticipate a competitor in the market as quickly as it happened."

However, the new company had managed to maintain consumer confidence in the combined organisation. The final criteria for success should be in this case, the financial performance for the first two years, relative to the initial criteria used.

Direct Nitrogen

Observer 2 : "The disruption was minimal - it was only necessary to replace two people. Success is measured by the amount that we have learnt and therefore it is not possible to predict the results."

Observer 3 : "The Agriculture Division showed a profit for the first time ! "

Observer 4 : "We have absorbed Direct Nitrogen into the Group, and relationships between the Division and customers have been strengthened, because we have advised them of our intended actions at all stages."

Background

In January 1971, the assets of the two Swiss companies CIBA and GEIGY were merged and the new company commenced trading as CIBA-GEIGY. The principal activities of the company are the manufacture and sale of chemicals. The merger is the subject of this report

Observers interviewed

Observer	Position
1	Head of Planning - Ciba
2	Head of Planning - Geigy

CIBA: FINANCIAL ANALYSIS				CIBA - GEIGY	
£'000	1967	1968	1969	1970	1971
Turnover	NA	28,180	32,274	64,922	72,855
Net Worth	10,527	10,864	10,808	31,702	33,060
Net Assets	17,024	17,914	18,234	46,947	60,729
PBIT	1,855	2,192	2,186	3,844	5,505
PAT	616	603	524	864	1,682
No.shares ('000)	NA	3,000	3,000	14,000	14,000
No.employees	NA	3,316	3,576	3,291	7,233
Gross Margin	NA	7.8	6.8	5.9	7.6
Net Margin	NA	2.1	1.6	1.3	2.3
Return on Net Worth(%)	5.8	5.5	4.8	2.7	5.1
Return on Net Assets(%)	10.9	12.2	12.0	8.2	9.1
Asset Turnover	NA	1.57	1.77	1.38	1.20
Current Ratio	0.95	1.01	1.08	1.31	1.88
Acid Test	0.44	0.42	0.60	0.51	0.84
Debtors (days)	NA	70	84	81	64
Gearing (%)	19.0	18.7	18.8	7.6	13.4
Coverage	2.6	2.3	2.0	2.1	2.7
Dividend Cover	6.16	24.12	20.96	NA	NA
Turnover/Employee	NA	8.498	9.025	19.727	10.073
Earnings per share(p)	NA	20	17.5	6.2	12.0
Net Assets per share(p)	NA	597	608	335	434

GEIGY: FINANCIAL ANALYSIS

£'000	1967	1968	1969
Turnover	NA	26,767	29,121
Net Worth	17,770	18,158	21,951
Net Assets	22,405	23,271	25,022
PBIT	1,009	1,376	1,457
PAT	173	338	380
No.shares ('000)*	NA	5,500	5,500
No.employees	NA	2,920	3,070
Gross Margin	NA	5.1	5.0
Net Margin	NA	1.26	1.3
Return on Net Worth(%)	0.97	1.86	1.73
Return on Net Assets(%)	4.5	5.9	5.8
Asset Turnover	NA	1.15	1.16
Current Ratio	1.84	1.64	1.54
Acid Test	0.80	0.72	0.77
Debtors (days)	NA	74	96
Gearing (%)	11.3	10.7	12.3
Coverage	3.4	3.4	2.2
Dividend Cover	NA	NA	NA
Turnover/Employee	NA	9.167	9.486
Earnings per share (p)	NA	6.1	6.9
Net Assets per share (p)	NA	423	455

* - 3'000 (£1) + 5,000 (50p)

CIBA - GEIGY (26-4) - MARKET ANALYSIS

SIZE: £'000,000

YEAR	SAMPLE NO.	MEAN	S.D.	CIBA	GEIGY	SCORE CIBA	SCORE GEIGY	SCORE CIBA + GEIGY
1967	16	18.76	37.6	NA	NA	-	-	-
1968	22	17.80	27.5	28.18	26.77	0.38	0.33	1.35
1969	22	19.53	28.2	32.27	29.12	0.45	0.34	1.48
1970	21	20.59	31.7	64.92		-		1.40
1971	19	24.23	31.6	72.85		-		1.53

ROCE: %

YEAR	SAMPLE NO.	MEAN	S.D.	CIBA	GEIGY	SCORE CIBA	SCORE GEIGY	SCORE CIBA + GEIGY
1967	22	16.6	7.94	10.9	4.5	-0.72	-1.52	-1.17
1968	22	19.0	8.26	12.2	5.9	-0.82	-1.59	-1.25
1969	22	19.6	10.00	12.0	5.8	-0.76	-1.38	-1.12
1970	21	17.8	9.36	8.2		-		-1.03
1971	19	16.8	5.90	9.1		-		-1.30

SECTION 1 : TRIGGER

1.1

Both Observers explained that although both companies operated regular, formal financial control systems, other aspects of the planning process were treated in a more informal manner in Ciba than in Geigy. These areas were :

Corporate objectives
External constraints and opportunities
corporate strengths and weaknesses
Product market strategy

1.2

The investment in research necessary to compete effectively on an international basis had become increasingly too great for the individual companies and each had begun to consider acquiring an interest in a similar company in order to improve cost-effectiveness in this field. Observer 2 explained that, in the case of Geigy, an added incentive to consider acquisition or merger was the relatively weak geographical spread of markets which the company served. Observer 2 commented that although it was really too early to judge, he felt that the anticipated benefits of combining research efforts were optimistic. However, one added factor not recognised at the time was the increasing need to consider rationalisation of the production processes in Ciba, and on balance, the decision to consider merger had been correct at the time.

SECTION 2 : ELIMINATION

2.1

Both companies were Swiss-owned with very strong nationalist ties and any merger or acquisition would only be considered if the proposed partner was also Swiss. Taken with the fact that both were seeking to strengthen their research base, the field was limited to three companies only - Ciba, Geigy and Sandos.

2.2

Observer 1 described a detailed company audit having been conducted in Ciba prior to the final decision, the audit covering the areas of :

the concept of the business
corporate objectives
corporate strengths and weaknesses.

Observer 2 was unaware of any analysis of corporate strengths and weaknesses although the other two areas had been discussed.

2.3

Concept of the Business

Both companies had classified themselves in the business of "Fine and Speciality Chemicals" and the executives interviewed were of the opinion that this was a correct evaluation. Observer 2 commented that this particular sector had two major advantages :

(1) less subject to cycles than other sectors of the chemical industry

(2) fitted the Swiss character - like watch-making !

2.4

Corporate Objectives

The organisation and control of Ciba was left to the individual companies, guidance being given by the product divisions and planning group in Basle. As a result of this, prime corporate objectives tended to be financial and were translated into marketing objectives within the individual countries. This is somewhat in contrast to the system operated by Geigy. The areas where prime corporate objectives were specified is shown in Table 1.

	Observer 1 - Ciba	Observer 2 - Geigy
Financial :		
Profitability	1	2=
Gearing		2=
Marketing :		
Volume		1=
Penetration		1=
Corporate :		
Industrial Relations	2	
Productivity		2=

TABLE 1 : CORPORATE OBJECTIVES

With the benefit of hindsight, both executives were of the opinion that the international nature of the companies precluded the specifying of detailed objectives - this should be the responsibility of the individual national companies.

2.5

The strengths and weaknesses recognised by Ciba management, as perceived by Observer 1, are shown in Table 2.

	Strengths	Weaknesses
Financial :		
Size		1=
Marketing :		
Geographical coverage		1=
Production :		
Technical expertise	1	
Research depth		2=
Corporate :		
Management	3	2
Image	2	

TABLE 2 : CIBA STRENGTHS AND WEAKNESSES

The weaknesses require further clarification :

(1) the company was financially too small for the required research expenditure

(2) they discovered that there was not the pipeline of research they had imagined.

(3) lower management was strong but there was an age imbalance between middle and senior management, the latter being predominantly near retirement.

With the benefit of hindsight, Observer 1 was of the opinion that the strength and depth of the existing product lines had not been recognised.

Table 3 shows the characteristics which executives felt should have been recognised in the individual companies at the time of merger.

	STRENGTHS		WEAKNESSES	
	Ciba Observer 1	Geigy Observer 2	Ciba Observer 1	Geigy Observer 2
Financial :				
Size			1=	
P/E		1=		
Marketing :				
Product Line	1=			
Geographic coverage			1=	
Production :				
Technical expertise	1=			
Research depth			2=	
Corporate :				
Industrial relations		1=		
Management	3	1=	2=	1=
Image	2	1=		

TABLE 3 : "IDEAL" STRENGTHS AND WEAKNESSES

Observer 2 described the management strength of Geigy to be its flexibility and high motivation. Unfortunately, this led to a lack of cohesion, poorly defined objectives and a less formal structure than that of Ciba. The company projected a "good citizen" image.

SECTION 3 : CRITERIA

3.1

The criteria which were applied by the separate companies to the decision to merge as perceived by each executive are shown in Table 4.

	Observer 1 - Ciba	Observer 2 - Geigy
Financial :		
Potential profitability	2=	2=
Size	2=	
Marketing :		
Geographic coverage	2=	
Type of markets		2=
Market size		2=
Market share (world)		2=
Production :		
Processes (complimentary spare capacity)	2=	2=
Research depth	2=	2=
Corporate :		
Management	2=	
Image	1=	
Nationality	1=	1

TABLE 4 : MERGE CRITERIA

Both executives emphasised that the companies had been very anxious to preserve the Swiss Chemical Industry and, with hindsight, this had proved beneficial to all concerned.

SECTION 4 : THE BID

4.1

The two companies had enjoyed a close relationship for many years : indeed, a possible merger had been discussed in the 1920's and during the 1950's Ciba had lent money to Geigy.

4.2

Arrangements for the merger varied according to the tax, anti-trust and legal regulations in the various countries in which the Group operated. In each case, one company acquired the other and the name was changed to Ciba-Geigy.

SECTION 5 : POST-ACQUISITION

5.1

A caretaker top management controlled the merged company for the first 18 months in order to plan future strategy. The subsequent action, described below, was thus all pre-planned :

Organisation structure : The Head Offices were combined and the company divisionalised into product groups as in the previous Ciba structure. In the U.K this resulted in a minimal merging of activities due to their complimentary nature. This resulted in some problems of salary structure but, fortunately, the pension schemes in operation were similar and it was possible to combine them.

Corporate : The names of the two companies were combined. It was unnecessary to make any of the management redundant, although one or two decided to leave. Observer 2 commented that the management was very complimentary, but in contrast, Observer 1 remarked that the difference in management philosophies had been "underestimated ten-fold", although the young Geigy management was now coming to the fore.

Asset Structure : Part of the Dye-Stuff activities in the United States were sold in order to avoid anti-trust legislation.

Marketing : All marketing activities such as pricing policy were co-ordinated rather than merged.

Products : The ranges were streamlined and are slowly being brought together.

Production : The research activities were combined but there was not much overlap in production facilities. However, rationalisation took place where possible.

Control : The Ciba system of control was less standardised and sophisticated than that used by Geigy and it was necessary to introduce a similar system for the whole group.

5.2

As the merger had been very carefully organised, all the action planned had been completed satisfactorily within the time anticipated.

5.3

Both Observers felt that the merger had been successful for the following reasons :

Observer 1 : (a) it had created a large Swiss Chemical company with a strong research base.

(b) short-term profitability was good.

Observer 2 : (a) it had taken the best of both worlds - the "stiffness" from Geigy and the "seat of the pants" from Ciba.

(b) very little lost in overlap of products or production and companies gained the size to operate more efficient finance and services. For example, it was now possible to place major convertibles on the London Market.

On 3rd April, 1969, the merger between Foseco Limited, a company specialising in supplying products to the metallurgical industry, and Minerals Separation, a company selling to the building industry, took place. The new company, Foseco-Minsep, comprises five divisions, viz:

metallurgical

building and construction

waste management

water treatment

Fosmin industries

The acquisitions discussed are those of -

1. Vallak, a supplier of hot topping materials to the steel industry in the U.K.

2. Protim & Gallway, a company specialising in products and services associated with wood preservation and damp-proofing.

Observers interviewed

Observer	Position
Report 1.	
1	M.D. (Foseco Chemicals)
2	Financial Director (Foseco Chemicals)
Report 2.	
1	M.D. (Foseco Building Products)
2	M.D. (Foseco-Minsep)

FOSECO-MINSEP: FINANCIAL ANALYSIS

£'000	1967	1968	1969	1970	1971
Turnover	20,122	24,013	29,023	38,709	45,296
Net Worth	5,468	9,655	17,653	19,491	20,741
Net Assets	7,036	13,198	23,415	24,814	28,127
PBIT	3,639	4,409	5,915	6,374	6,329
PAT	1,891	2,089	2,983	3,328	3,424
No.shares ('000)	6,012	6,613	42,588	43,260	43,472
No.employees	-	4,449	5,666	6,287	6,095
Gross Margin	18	18	20	16	14
Net Margin	9	9	10	8	7
Return on Net Worth	34.6	21.6	16.9	17.1	16.5
Return on Net Assets	51.7	33.4	25.3	25.7	22.5
Asset Turnover	2.9	1.8	1.2	1.6	1.6
Current Ratio	1.22	1.71	1.55	1.47	1.54
Acid Test	0.90	1.40	1.23	1.10	1.16
Debtors (days)	80	83	127	112	99
Gearing	0.7	14.0	7.9	6.6	16.9
Coverage	34.6	26.2	23.8	18.4	12.9
Dividend Cover	1.78	1.78	1.44	1.59	2.58
Turnover/employee	-	5,397	5,122	6,157	7,432
Earnings per share(p)	31	32	7	8	7
Net Assets per share (p)	117	199	55	57	65

FOSECO-MINSEP: METALLURGY

MARKET DATA (26-4)

(TRADING PROFIT/TURNOVER)

	1967	1968	1969	1970	1971
Albright & Wilson	6.5	6.6	4.4	4.4	5.1
Fisons	6.3	9.1	10.1	7.1	9.9
Coalite	18.3	18.8	23.4	24.1	20.3
Croda	4.9	6.5	7.5	7.4	7.0
Berk					
Hickson & Welch	14.8	14.3	13.6	13.1	14.8
Midland Yorkshire	8.2	9.3	10.1	10.4	7.0
Coates Bros.	-	16.2	15.3	13.7	14.6
Ault & Wiborg	-	8.4	8.5	7.8	8.3
Yorkshire Chemicals	12.8	15.3	12.8	12.4	14.5
Cooper, McDougall & Robertson					
Philblack	31.7	35.7	38.6	31.8	26.7
Flemming	-	14.6	14.2	11.4	9.0
Revertex	8.8	10.3	9.2	7.4	7.1
National Carbonising	12.1	13.1	12.8	15.3	16.0
Jeyes	6.3	7.7	7.0	7.0	6.5
Sturge	13.8	14.2	15.2	8.2	14.3
Burrell	15.1	13.7	13.1	14.9	15.3
Holliday	-	9.3	9.2	9.1	12.4
Scottish Tar					
Holt Products	13.5	12.9	13.4	9.9	7.5
Anchor Chemicals	4.5	4.2	2.7	2.9	4.0

FOSECO-MINSEP: BUILDING AND CONSTRUCTION.

MARKET DATA (46-4)

(Trading Profit/Turnover)

	1967	1968	1969	1970	1971
Redland	12.0	15.7	14.7	13.5	13.9
Hepworth Ceramics	-	-	-	13.5	12.6
BPB Industries	10.5	13.2	12.3	10.0	10.6
Marley	8.4	8.3	6.3	5.2	9.8
Cape Asbestos	7.4	9.7	9.3	7.1	7.5
Universal Grinding	-	13.9	14.9	15.8	13.7
Bath & Portland	4.0	2.9	1.9	2.4	4.6
Central Manufacturing	-	13.5	12.7	13.1	10.6
Thermal Syndicate	13.2	9.7	14.2	13.6	7.0
Crossley Building	-	4.8	3.2	4.8	6.9
Banbury Buildings	-	11.2	12.7	12.0	11.1
* Atlas Stout					
Marshall (Thomas)	6.2	6.6	6.7	7.6	8.1
* National Star Brick & Tile					
Wettern Bros.	6.7	7.2	4.9	5.3	10.0
* Moler Products					
* Blockleys					
* Baggeridge Brick					
* Cottness Industries					
FEB (GB)	8.8	5.9	4.1	4.5	6.0
Sheffield Brick	-	-	8.2	6.5	6.3
Anglo American Asphalt	-	13.2	13.2	7.1	12.1
Hewitt J. & Son	21.6	23.8	19.7	19.6	18.8
Crowther W.	-	30.6	36.2	33.6	31.2

*Data not available

FOSECO MINSEP

METALLURGY DIVISION

	SALES	TRADING PROFIT	MARGIN
1967	NA	3534	-
1968	NA	4240	-
1969	32646	5654	17.3
1970	36386	5163	14.2
1971	35444	5093	14.4

BUILDING AND CONSTRUCTION

	SALES	TRADING PROFIT	MARGIN
1967	NA	1296	-
1968	NA	803	-
1969	3113	87	2.8
1970	3892	216	5.5
1971	5416	629	11.6

MARKET ANALYSIS

FOSECO-MINSEP: METALLURGY

SIZE: £M

YEAR	SAMPLE NO.	MEDIAN	MEAN	S.D.	FOSECO	SCORE
1967	16	14.45	18.8	37.6	NA	NA
1968	22	8.43	17.8	27.5	NA	NA
1969	22	11.02	19.5	28.2	32.6	0.46
1970	21	11.34	20.6	31.7	36.4	0.50
1971	19	13.19	24.2	31.6	35.4	0.35

PROFIT: %

YEAR	SAMPLE NO.	MEDIAN	MEAN	S.D.	FOSECO	SCORE
1967	14	12.4	12.6	6.5	NA	NA
1968	19	12.9	12.6	5.7	NA	NA
1969	19	12.8	12.7	5.5	17.3	0.84
1970	19	9.9	11.5	6.1	14.2	0.44
1971	19	9.9	11.6	5.9	14.4	0.46

MARKET ANALYSIS

FOSECO - MINSEP: BUILDING AND CONSTRUCTION(46/4)

SIZE: £'000,000

YEAR	SAMPLE NO.	MEDIAN	MEAN	S.D.	FOSECO	SCORE
1967	15	3.45	15.5	20.4	NA	NA
1968	21	3.87	13.7	19.8	NA	NA
1969	21	4.73	15.5	21.6	3.1	-0.57
1970	21	5.01	18.9	23.6	3.9	-0.63
1971	20	7.19	22.5	26.2	5.4	-0.65

TRADING PROFIT/TURNOVER: %

YEAR	SAMPLE NO.	MEDIAN	MEAN	S.D.	FOSECO	SCORE
1967	10	8.6	9.9	4.9	NA	NA
1968	16	10.6	11.9	7.1	NA	NA
1969	17	12.3	11.5	6.8	2.8	-1.28
1970	18	8.8	10.8	6.9	5.5	-0.77
1971	18	9.9	11.1	6.3	11.6	0.08

Section 1: Trigger

1.1 Both executives explained that the planning system in operation within the Group at the time of the acquisition discussed concentrated upon both formal, regular financial controls, and evaluation of product/market strategy. Other facets of the planning system had not developed to the same extent; in particular, the setting of objectives was seen by observer 1 as the responsibility of the parent company, whilst observer 2 did not perceive any to exist at all, other than those personalised objectives which each individual executive followed. Table 1 shows the complete level of agreement.

	Observer 1	Observer 2	Consensus
Objectives	FORMAL REGULAR	NO SYSTEM	✗ ✗
Constraints	FORMAL* REGULAR	INFORMAL IRREGULAR	✗ ✗
Strengths and weaknesses	FORMAL IRREGULAR	INFORMAL IRREGULAR	✗ ✓
Product/market strategy	FORMAL REGULAR	FORMAL REGULAR	✓ ✓
Monitor & control system.	FORMAL REGULAR	FORMAL REGULAR	✓ ✓

TABLE 1 - Planning system.

* "this varied somewhat in depth according to the business and the company and was not controlled centrally."

1.2 Observer 2 explained that, as a result of the formal monitoring of product/market strategy, it had become evident that further penetration on the foundry side of the business was necessary to "eliminate some of the numerous competitors who had become a nuisance." Valak, a direct competitor in one or two lines under licence, infringed a Foseco patent and as a result, a Merchant Bank which owned a large proportion of the shares "baled out" - an ideal opportunity for Foseco (observer 1). Observer 1 did not perceive that the planning system had identified a specific need for acquisition at the time, nor with the benefit of hindsight would he change this. In contrast, observer 2 felt that many suppliers and competitors were "thorns in the company's side" and that these could best be eliminated by acquisition.

Section 2: Elimination

2.1 Executives disagreed as to the extent to which an internal company audit was conducted prior to the final decision to acquire Valak. This is seen in Table 2.

	Observer 1	Observer 2	Consensus
1. Consider concept of business?	YES	YES	YES
2. Assess company objectives?	NO	NO	NO
3. Evaluate strengths and weaknesses?	NO	YES	X
4. Seek synergy?	YES	NO	X

TABLE 2: Internal Company Audit

Observer 1 felt that any evaluation of strengths and weaknesses would not have been particularly useful as Valak was a small acquisition - any measure of possible synergistic effect must, therefore, have been very superficial. Observer 2 felt that although Valak might not have been an ideal acquisition if synergy were sought, two major factors outweighed any such possible considerations -

1. the Managing Director was impressive.
2. it was cheaper to "buy than battle".

2.2 Concept of the business

Both executives agreed that Foseco F S had been correctly classified as being a metallurgical company. Observer 1 adding that it was concerned with supplying consumable chemical products to the industry.

2.3 Corporate objectives

Profitability was the only objective perceived to exist by either executive, although in differing forms, observer 1 specifying growth in profitability at a quantified rate, and observer 2 commenting that profitability, unspecified and unquantified, had "tended to evolve as a prime objective in an indirect fashion". However, when asked to comment upon this situation, both felt that it was unsatisfactory. Table 3 shows the areas in which objectives ought to have been specified.

	Observer 1	Observer 2	Consensus
Financial:			
Profitability	1	2	✓
Liquidity	4=		
Capital expenditure	4=		
Marketing:			
Geographic penetration	3		
Market development		1	
Corporate:			
Industrial Relations	2		

TABLE 3 - Ideal Corporate Objectives

2.4 Table 4 shows the corporate strengths and weaknesses which observer 1 felt were evident at the time discussed and which observer 2 perceived to have been correctly identified.

	STRENGTHS			WEAKNESSES		
	1	2	Consensus	1	2	Consensus
Financial:						NO CONSENSUS
Liquidity	2					
Marketing:						
Products					1	
Markets:	1	1=	✓1			
Customer Service		1=				
Corporate:						
Management		3		2		
Communication				1		
Organisation	3	2	✓2			
Information system	4					

TABLE 4 - Corporate Strengths & Weaknesses

A number of points require further explanation -

1. Liquidity - plenty of money available for R & D.
2. Products and markets - although the company competed in geographically widespread markets, it was vulnerable to

attack from competitors on individual product lines as occurred in the case of Valak.

3. Management - although "loyal and dedicated" (observer 2), there was a distinct lack of "good people" (observer 1).

4. Organisation, communication and information - the decentralised nature of the structure which gave maximum autonomy to subsidiaries was seen by both executives as a major strength. Unfortunately, this had led to a lack of co-ordination between "the centre and worldwide companies".

Section 3: Concentration

3.1 Executives disagreed when asked if formal criteria for evaluation were set up prior to consideration of Valak. However, certain factors, shown in table 5, were considered prior to a final decision.

	Observer 1	Observer 2	Consensus
Financial:			
Net assets	5=		
Profitability		1=	
Effect on P/E	5=		
Price	5=		
Marketing:			
Risk	1		
Licensee relationships	3		
Products		1=	
Market penetration		1=	
Corporate:			
Management-personnel	4		
structure	5=		
Future plans	2		

TABLE 5 - Acquisition Criteria

Observer 1 explained that the major consideration concerned the effect upon the market-place of a second source of supply - how much business would the company lose? Additional to this was the major problem of "determining what Foseco would wish to do with it in the future." Observer 2 did not perceive this to have been a consideration and, indeed, commented that future plans should have been given much more consideration. There was an implicit assumption that the two companies would continue 'separate but combined', but in the event the "reps. cut each others' throats" thus sub-optimising total company profits. Consistent with the perception of observer 2 as described previously, observer 1 explained that the fact that the company was headed by a dynamic Managing Director, who was willing to remain, was of prime importance.

Section 4: The Bid

4.1 An open declaration of intent was made and shares were bought from the Merchant Bank described earlier. The final settlement comprised mainly of cash with a small proportion of shares.

4.2 Although executives disagreed in their perception of whether a premium was paid on net asset value, they did agree that the price paid was within that originally set by Foseco as a maximum.

Section 5: Post-acquisition action

5.1 Although observers described essentially the same action, their answers varied in emphasis. Observer 1 stated that action had been positively planned prior to the acquisition, and observer 2 described a situation where it seemed easier to leave Valak alone that to completely absorb it into the Group.

5.2 Corporate: The company was left as a separate entity, run as a satellite of Tamworth, with the Managing Director reporting to the Managing Director, U.K. Some of the Foseco management were introduced onto the Board. The name was changed from Valak to Moldak as part of the sale agreement, and at the insistence of the owner of Valak.

Control System: The Foseco system was introduced, although "it was not very sophisticated" (observer 2).

Production: No immediate action took place, but Foseco is now making major additions to the Moldak plant in order to increase capacity for Foseco products - Tamworth was too centralised with a dangerously strong Union. Observer 1 felt that this could have been started earlier.

Marketing: Both companies would continue to market their own products but Moldak would liaise with Foseco on the approach to be adopted.
It was planned that the two companies would be allowed to continue to trade in the same business

and that Foseco would take on additional complimentary lines, whilst Moldak would be encouraged to develop within its own skills. The new arrangement gave Foseco further opportunities for licensing products.

5.3 Except for the expansion of production plant, all the action described had been anticipated prior to the completion of negotiations.

5.4 Observer 2 explained that all the initial changes had been completed within the time anticipated, whereas observer 1 perceived it to have been completed somewhat earlier than expected.

5.5 The final judgement, however, was unanimous - the acquisition had been successful. The criteria for success are seen below.

Observer 1 -
1. Good RO 1
2. "Could be used as a flame-thrower against other U.K. competitors".
3. "Didn't lose any customers."
4. Key man (M.D.) stayed and successfully broadened the business.

Observer 2 -
1. The ratio of profit to investment was as anticipated.
2. The company as a whole has expanded in the service business.

Section 1: Trigger

1.1 The companies of Foseco and Minerals Separation had merged only shortly before the acquisition of Protim and there was no corporate system for planning within the new Group. Observer 1 commented that Minerals Separation had previously adopted a very formal, regular system, whereas in Foseco none had existed.

1.2 However, a planning system had not signalled the need for the newly formed company to consider acquisition. Both executives explained that the original Foseco companies had an increasing lack of faith in the ability of the metallurgy sector to produce the future required level of profitability, making the atmosphere ripe for acquisition suggestions. Conversely, the Minsep executives comprised an "aggressive cuckoo in the nest" (observer 2) and felt the need to make "large acquisitions in order to put Foseco in its place."

Section 2: Elimination

2.1 Observer 2 explained that the prevailing atmosphere as described in the previous section, led to an interest in companies connected with the construction industry since Colmac, a manufacturer of lavatory seats, was already an industry supplier. Unfortunately, the executive concerned who had "no concept of the growth areas in the industry" had investigated Rawlplug and Rentokil and eventually, through a chance meeting of executives, Protim. Observer 1 did not perceive a specific sector having been identified but rather any company which was non capital intensive and which was in any general service field.

2.2 Executives were not able to agree completely on the extent to which an internal company audit took place prior to the final decision to acquire Protim (see Table 1), although both felt that it would have been a useful exercise.

	Observer 1	Observer 2	Consensus
Consider the concept of the business?	Yes	No	X
Assess corporate objectives?	No	No	No
Appraise strengths & weaknesses?	No	No	No
Seek synergy.	Yes	No	X

TABLE 1 - Company Audit

2.3 Concept of the Business

Observer 1 explained that the new company was seen as a holding/conglomerate group, but that this view was very unhelpful in determining the future character of Foseco-Minsep. Although the acquisition search was focused upon the Construction Industry, observer 2 felt that this was based upon the erroneous assumption that it would be as easy to establish a dominant position as it had been in the Metallurgy Industry. Thus, a specific field should have been chosen within the Industry which was international in nature, with potential for rapid growth, such as "pre-cast foundry" or the "services field."

2.4 At this stage, both executives explained that the newly formed company was searching for an identity in a very informal but frantic manner. This was further complicated by the fact that the executives of the two original companies had not lost that strong feeling of rivalry.

2.5 Corporate Objectives

Although profitability was implicitly understood to be of prime importance, no specific quantified objectives existed within the Group at the time under discussion. Observer 2 felt that quantified profitability objectives would have been sufficient to establish some cohesive direction, whereas observer 1 would have been even more specific in identifying corporate direction. (See table 2)

	Observer 1	Observer 2	Consensus
Financial:			
Profitability	✓	✓	✓
Marketing:			
Penetration	✓		
Product development	✓		
Market development	✓		
International diversification.	✓		
Corporate:			
Organisation definition.	✓		

TABLE 2 - Ideal Corporate Objectives

2.6 Corporate Strengths and Weaknesses

Observer 1 stated that "a deep analysis of this type was necessary as it was obvious that the dominance of the metallurgy section made the company unbalanced, and it was thus necessary to search for new areas." Conversely, observer 2 felt that the strengths and weaknesses which would have been identified (shown in table 3) would have helped to focus attention on problem areas.

	Strengths	Weaknesses
Markets	✓	
Management	✓	✓
Image		✓
No objectives		✓

TABLE 3 - Observer 2, strengths and weaknesses.

Within their existing markets the companies had established a good position with management who were "appropriate to the business." Unfortunately, the two Managing Directors were unable to find common grounds for agreement upon major operating decisions. This was exacerbated by the "lack of connection between the two businesses in existence" - "there was no corporate identity."

Section 3: Concentration

3.1 A previous acquisition which had been made as a result of a very formal screening process, had been "a disaster" and thus executives tended to distrust formality - "the lunch table approach" became more acceptable (observer 1). The criteria to be applied being very broad. Table 4 shows the factors

Section 4: The Bid

4.1 A direct approach was made to the two major shareholders of Protim, who were also joint Managing-Directors, and round-table discussions assisted by financial advisors took place.

4.2 An exchange of shares was effected at the request of the victim firm as "this was in line with current company policy" (observer 2). Observer 1 did comment that, in the event, it would have been cheaper to pay cash.

4.3 Although a premium was paid over both the pre-bid price and the net-asset value, the price paid still remained within the maximum set by the Foseco-Minsep executives.

Section 5: Post-acquisition action

5.1 After the problems encountered by the Tamworth division when attempting to absorb CBP, senior executives decided to leave the acquired company almost completely alone, merely putting a member of Foseco-Minsep on the Board. Unfortunately, it was not known until after the acquisition that the two brothers who were joint Managing Directors clashed constantly to such an extent that it was eventually impossible for them to work together. Two years later they were replaced by a senior executive specifically recruited from outside Foseco-Minsep. Also at this time the businesses were divided into two main groupings.

The brothers mentioned previously "didn't believe in forecasts" (observer 2), nor did they employ a financial director and it was necessary for the existing systems to be perceived to have been considered.

	Observer 1	Observer 2	Consensus
Price		✓	
Degree of capital intensiveness	✓		
Profit record	✓		
Management	✓	✓	✓

TABLE 4 - Acquisition Criteria

Observer 2 commented that a major factor was the "belief that it was a good business - nice and lively." He added further that if a major study had been conducted, there was some doubt about whether Protim would have been acquired at all as a study would have revealed -

1. their technology was out of date.
2. arrangements with worldwide customers which may need re-negotiation.
3. the dominance of two giants in the chemical field on the continent.

Table 5 shows the areas of investigation which executives felt were appropriate at the time discussed.

	Observer 1	Observer 2	Consensus
Profitability	✓	✓	✓
Existing markets		✓	
Existing customers		✓	
Production processes	✓	✓	✓
Management	✓	✓	✓

TABLE 5 - Ideal Criteria

tightened and the use of standard costing encouraged.

5.2 Both observers felt that the acquisition had been a qualified success for the following reasons:

Successes:	Observer 1 -	Good profit growth. Provided a springboard for other activities. Provided the base for a service division. Developed international activities.
	Observer 2 -	Good profit growth.
Disappointments:	Observer 1 -	Management clash. Lack of expected depth of expertise in management.
	Observer 2 -	"People didn't fit into Foseco-Minsep."

BACKGROUND

Prior to 1970, J. Gliksten and Son imported and distributed hard and soft timber, plywood, boards, doors and allied building materials owning 25 acres of land, sawmills and kilns. During April of that year, the company acquired Horlsey, Smith & Jewson - timber importers and merchants, saw millers, builders merchants and flooring contractors. The resultant company was renamed International Timber.

INTERNATIONAL TIMBER - MARKET ANALYSIS

SIZE (£'000,000)

YEAR	SAMPLE NO.	MEDIAN	MEAN	S.D.	International Timber	SCORE
1967	16	9.93	15.3	18.7	21.1	+0.31
1968	25	6.37	16.5	21.8	25.4	0.41
1969	23	6.25	18.0	26.7	29.1	0.42
1970	20	8.16	22.3	28.9	31.3	0.31
1971	14	9.76	27.6	34.3	58.7	0.91

ROCE (%)

YEAR	SAMPLE NO.	MEDIAN	MEAN	S.D.	International Timber	SCORE
1967	25	11.2	12.6	6.6	11.7	-0.14
1968	27	13.4	14.5	6.75	20.7	0.92
1969	26	11.0	13.0	7.4	21.5	1.15
1970	23	10.6	13.0	8.2	7.6	-0.66
1971	16	15.2	16.0	8.0	11.4	-0.58

INTERNATIONAL TIMBER - FINANCIAL ANALYSIS

£M	1967	1968	1969	1970	1971	1972
Turnover	21, 127	25, 444	29, 078	31, 297	58, 676*	56, 351
Net Worth	5, 941	6, 684	7, 080	8, 852	10, 079	13, 066
Net Assets	6, 481	7, 658	7, 807	14, 026	15, 698	19, 538
PBIT	755	1, 586	1, 675	1, 073	1, 957*	3, 900
PAT	456	878	951	688	852*	2, 046
No. shares	5, 400, 000	5,700,000	5,700,000	7,312,000	7,312,000	8,732,000
No. employees	NA	1, 836	2, 080	1, 924	4, 493	4, 486
Gross Margin	3. 5	6. 2	5. 8	3. 4	3. 3	6. 9
Net Margin	2. 2	3. 4	3. 3	2. 2	1. 4	3. 6
Return on Net Worth	7. 7	13. 1	13. 4	7. 8	7. 4**	15. 4
Return on Net Assets	11. 7	20. 7	21. 5	7. 6	11. 4**	20. 0
Asset Turnover	NA	3. 3	3. 7	2. 2	—	2. 9
Current Ratio	0. 73	1. 90	1. 50	1. 33	1. 30	1. 63
Acid Test	0. 33	0. 91	0. 74	0. 57	0. 63	0. 85
Debtors (days)	60	73	66	71	78	84
Gearing (%)	4. 8	4. 3	4. 1	38. 4	34. 6	28. 8
Coverage	—	—	—	—	4. 0	7. 8
Dividend cover	1. 01	1. 80	1. 94	1. 30	NA	2. 05
Turnover/employee	NA	13, 800	14, 500	16, 200	NA	12, 600
Net Assets/share (£)	1. 22	1. 34	1. 37	1. 96	2. 14	2. 24
Earnings/share (p)	8. 4	15. 4	16. 6	9. 7	NA	23. 5

* includes 15 months figures of Horsley, Smith & Jewson

** estimated

SECTION 1 : TRIGGER

1.1

All executives agreed that formal and regular systems for monitoring corporate objectives and financial performance were in operation in Gliksten prior to the acquisition discussed. However, descriptions of other aspects of the planning process varied. See Table 1 :

	Observer 1	Observer 2	Observer 3	Consensus ($=\frac{2}{3}$)
Objectives	Formal Regular	Formal Regular	Formal Regular	Formal Regular
External Constraints	Informal Irregular	Informal Irregular	Formal Regular	Informal Irregular
Strengths and Weaknesses	Informal Irregular	No System	Formal Regular	X X
Product/Market strategy	Formal Irregular	Informal Irregular	Formal Regular	Formal Irregular
Monitor and control system	Formal Regular	Formal Regular	Formal Regular	Formal Regular

TABLE 1 : PLANNING SYSTEM

1.2

In their opinion the system as described by each executive did signal the need to consider growth by acquisition. Observer 1 explained that although they had tried to enter the soft-wood market, the attempt had been unsuccessful and it became increasingly obvious that it would be necessary to acquire expertise in this field. This was in contrast to the perceptions of both the other executives interviewed who explained that the Timber Trade was reaching a stage where a rationalisation of the structure both vertically, from forest to consumer, and horizontally, in terms of larger manufacturing and distribution units, was inevitable. In that situation, in order to survive Gliksten must grow quickly by acquiring within the trade.

SECTION 2 : ELIMINATION

2.1

The signals had focussed attention upon specific categories of companies and the categories which executives described were consistent with their answers in the previous section.

Observer 1	:	Soft Wood Market
Observer 2	:	Timber Trade
Observer 3	:	Timber Trade - companies with strengths in distribution rather than importing or manufacturing.

2.2

A complete company audit of Gliksten was conducted prior to the final decision to acquire, although Observer 2 felt that it was on an informal rather than a formal basis. See Table 2 :

	Observer 1	Observer 2	Observer 3	Consensus
Consider concept of the Business ?	NO	YES	YES	YES
Assess Corporate Objectives ?	YES	YES	YES	YES
Evaluate Corporate strengths and weaknesses ?	YES	Informally discussed	YES	YES
Seek Synergy ?	YES	YES	YES	YES

TABLE 2 : COMPANY AUDIT

* Kendall's Coefficient of Concordance = 0.82

X^2 = 7.38, 10% S.L. = 6.25

In particular, the objectives of penetration and product development are consistent with the previously described acquisition signals and with the move to a market oriented company.

All executives considered that the objectives which they described were correct at that particular time.

2.5

Executives were in strong agreement that the major strengths of the company at that time lay in its financial record whilst the weaknesses lay in the degree of depth and width of market penetration. Table 4 shows observers perceptions of the complete results of the analysis.

	STRENGTHS				WEAKNESSES			
	1	2	3	Consensus	1	2	3	Consensus*
Financial :								
Liquidity	1=							
Profitability		1=	1=	√				
Gearing Potential	1=		1=	√				
P/E Ratio		1=						
Dividend record			1=					
Marketing :								
Type of products								
Type of markets	2	2=	3=	√	1=	2=	1=	√
Market Size						2=	1=	√
Market Share						1		
Production :								
Manufacturing	3=	2=	3=	√				
Distribution		2=						
wharves/warehses.	3=							
Vulnerability to suppliers							1=	
Corporate :								
Management		2=	2	√				
Financial systems	1=							

TABLE 4 : CORPORATE STRENGTHS AND WEAKNESSES

* Insufficient agreement to establish an order of ranking
($W = 0.12$, $X^2 = 1.44$, 10% S. L. = 7.78)

A number of points require further explanation :

(1) All executives agreed that the company's major strength was in the hardwood market, observer 3 also adding veneers and plywood.

(2) The area of major weakness was lack of knowledge and penetration of the softwood market.

(3) Both observers 2 and 3 explained that the company recognised the limited growth potential of the major markets in which it operated.

When asked to comment on his perception of the results of the analysis with the benefit of hindsight, observer 2 felt that he had not been sufficiently involved in corporate decisions at that time to comment. However, observer 1 was of the opinion that two further weaknesses had not been recognised :

(a) the company executives were "too smug about doors"

(b) industrial relations was neglected almost completely.

Observer 3 would have placed prime emphasis in different areas :

(a) the strength of the manufacturing management

(b) the weakness of limited growth in the hardwood market.

SECTION 3 : CRITERIA

3.1

All executives described criteria which were consistent with the initial acquistion signals and with the search for a company which would compliment the strengths and weaknesses of Gliksten. Table 5 shows individual responses :

	Observer 1	Observer 2	Observer 3	Consensus * ($=\frac{2}{3}$)
Financial :				
Size - Turnover		1=	1	√
Marketing :				
Product width	1=	1=	2	√
Types of markets (esp. softwoods)	1=	1=		√
Distribution outlets			4	
Production :				
Raw material sources	2			
Corporate :				
Management	3	1=	3	√

TABLE 5 : ACQUISITION CRITERIA

* insufficient agreement to establish an order of ranking
($W = 0.09$, $X^2 = 0.81$, 10% S. L. = 7.78)

It was felt necessary to choose a company which "would welcome Gliksten and with whom the Gliksten management could work" (observers 2 & 3), and, as a result of applying this criterion, Horsley Smith & Jewson was initially rejected, as being a strong family-based company which would not welcome newcomers. However, later investigation showed this not to be the case.

Observer 2, who was not directly concerned with the detailed analysis would have changed the emphasis slightly, placing the fit of products and markets before the other criteria. Thus :

1= Type of Products
1= Type of Markets
2 Size
3 Management

The other two observers were of the opinion that the areas of investigation and their relative importance were correct.

SECTION 4 : THE BID

4.1

As Horsley, Smith & Jewson was a privately owned family firm, all negotiations were conducted directly with the owners.

4.2

The transaction took the form of convertible loan stock and a small issue of ordinary shares - "we could'nt afford cash" (observer 3). Observer 1 explained that the "sellers earned a reasonable return which was allowable against tax and it helped the consolidated gearing potential."

4.3

In contrast to observer 3, the other two executives explained that a premium over the net asset value was not paid, although all agreed that the final price agreed was within the limits originally set by the Gliksten executive.

SECTION 5 : POST-ACQUISITION

5.1

An outline plan of action was prepared pre-acquisition and, except for some minor changes, was carried out as described below :

Corporate :	the two companies were essentially left intact and a Holding Company structure was created under the title of International Timber, the existing management was retained and observer 3 explained that various working parties were set up at all management levels in an attempt to help the two groups of people to work together.
Organisation :	the companies trading within each of the two original Groups were re-organised into a divisional structure, each individual company retaining its original autonomy.
Marketing :	within this re-organisation only two companies were affected in any major way - Horsley, Smith and Jewson took over a Gliksten softwood company and, in return, Gliksten acquired a hardwood and sheet material company. Both executives directly involved felt that one of the major advantages of the acquisition was the match of a manufacturing based company (Gliksten) and 'direct to customer' distribution compnay (Horsley, Smith & Jewson) ; which enabled Gliksten products to be sold in the newly acquired branch outlets.
Production :	the new Holding Company was embarrassed by duplicate manufacturing and wharf facilities in the London area with the result that all work was

transferred to the Stratford site and the acquired facilities closed down. Observer 3 explained that the inventory holding across the two companies was rationalised.

Control Systems : Observer 1 had explained in Section 2 that one of the major Gliksten strengths was the sophisticated financial control system in operation. The acquired company was particularly weak in this area and the skills within Gliksten were directed towards extending their own existing system across all divisions.

5.2

With the benefit of hindsight, all executives agreed that in broad terms, the action taken was correct. Observer 2 had one small reservation. He felt that the word 'timber' should not have been used in the new name, as this projected the wrong image both internally and externally.

5.3

The re-organisation was completed in a shorter time than the executives concerned had originally anticipated and all agreed that it had been successful for two major reasons :

(a) the anticipated profits had been more than achieved.

(b) "It was a happy marriage" (observer 2) - "the employees are working well together" (observers 1 and 3).

BACKGROUND

The company produces engineering plant for the steel, gas and chemical industries, excavators and other contractor's plant, solid fuel and oil heating applicances, and household consumer goods. Products under the last heading are sold by Izal Limited which yielded about 70% of group profit in 1969 from 35% of the total group turnover. About 15% of the turnover was derived from exports and overseas sales.

Acquisitions made by Izal Limited over the last ten years are the subject of the interviews - these are

Ronuk
Rosalex
Kent
Airkem
Thawpit

OBSERVERS INTERVIEWED

Observer	Position	Number of Years	
		In Job	In Company
1	Managing Director - Newton Chambers Ltd	7	17
2	Managing Director - Izal Limited	7	10
3	Corporate Planner - Newton Chambers Ltd	2	2

NEWTON CHAMBERS - FINANCIAL PERFORMANCE

(£'000)	1967	1968	1969	1970	1971
Turnover	17,539	18,916	21,988	21,320	21,094
Net Worth	12,981	13,325	13,232	12,981	12,861
Net Assets	14,965	15,300	15,115	13,964	13,697
PBIT	1,277	1,809	1,468	1,510	1,576
PAT	637	992	714	824	837
No. Employees	NA	4,236	4,445	4,467	3,769
No. Shares ('000)	12,896	12,896	12,896	12,896	12,896
Gross Margin	7.3	9.6	6.7	7.1	7.5
Net Margin	3.6	5.2	3.3	3.9	4.0
Return on net assets	8.5	11.8	9.8	10.8	11.5
Return on net worth	4.9	7.5	5.4	6.3	6.5
Asset Turnover	1.35	1.42	1.65	1.64	1.64
Dividend Cover	1.19	1.47	1.03	1.52	1.54
Current Ratio	3.70	2.70	2.15	1.86	2.30
Acid Test	1.90	1.45	1.13	0.78	0.95
Debtors (days)	74	79	84	86	70.5
Gearing (%)	4.4	4.1	4.1	4.0	3.8
Turnover per employee (£)	—	4,500	4,950	4,750	5,600
Earnings per Share (p)	4.95	7.70	5.50	6.40	6.50
Net assets per Share (£)	1.15	1.18	1.17	1.08	1.06

IZAL LIMITED - COMPARISON WITH NEWTON CHAMBERS

Year	TURN OVER			RETURN ON CAPITAL		
	Newton Chambers	Izal	%	Newton Chambers	Izal	
1967	17.54	6.73	38	8.5	29.3	High
1968	18.92	6.81	36	11.8	25.0	High
1969	21.99	7.70	35	9.8	25.9	High
1970	21.32	8.52	40	10.8	19.9	High
1971	21.09	8.74	41	11.5	27.1	High

BRITISH OXYGEN, LAPORTE, IZAL - MARKET PERFORMANCE (BOT 26/4)

	1967		1968		1969		1970		1971	
	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI
Albright & Wilson	105. 9	6.8	111. 9	6.6	120. 5	5.0	129. 0	5.2	123. 9	5.9
Fisons	78.43	7.2	86.42	10.9	82.23	11.3	88.11	8.0	90.09	15.3
Coalite	12.68	26.8	15.74	30.0	18.80	37.5	19.87	35.2	22.70	28.3
Croda	17.07	16.1	26.85	14.7	28.02	15.9	37.26	16.0	51.16	15.2
Berk	15.94	7.3	17.12	13.3	21.35	13.0	A	A	A	A
Hickson & Welch	—	20.3	10.20	18.3	14.08	14.9	17.01	15.7	19.18	18.4
Midland Yorkshire Tar Distillers	6.34	10.3	12.59	11.7	11.26	11.1	11.34	11.5	11.42	7.8
Coates Brothers	—	27.3	16.53	28.2	18.87	27.0	22.82	26.1	25. 7	27.1
Ault & Wiberg	—	15.7	10.81	15.9	12.61	16.6	13.18	13.6	13.19	15.1
Yorkshire Dyeware	4.47	11.9	4.93	15.0	5.83	14.4	6.38	15.0	7.98	20.6
Cooper. McDougall and Robertson	16.02	30.8	19.01	40.0	22.92	44.5	24.85	42.5	A	A
Philblack	3.49	20.0	4.11	26.4	5.34	33.4	5.09	21.0	5.39	14.4
Fleming	—	22.1	5.78	20.8	6.00	20.2	6.71	17.6	7.30	14.4
Revertex	8.44	19.8	9.26	23.5	12.70	23.8	16.17	16.2	17.77	13.0
National Carbonising	5.52	9.7	5.70	11.8	6.27	16.4	10.76	27.4	20.06	26.0
Jeyes	7.85	15.3	8.69	23.4	12.83	16.3	15.00	14.1	17.96	14.9
Sturge	3.40	19.3	3.95	19.0	4.56	17.4	4.56	8.2	5.31	15.1
Burrell	—	13.8	3.12	13.1	3.45	13.2	3.71	15.8	3.66	16.0
Holliday	—	3.4	3.45	9.0	3.75	10.0	3.73	8.6	4.38	15.1
Scottish Tar	2.56	9.3	2.90	14.7	3.60	21.4	3.52	21.3	NI	NI
Holt Products	4.26	31.0	4.51	29.8	5.51	34.4	5.51	25.0	6.06	22.0
Anchor Chemicals	6.60	20.8	8.17	22.1	9.21	13.8	7.38	10.1	6.18	15.0

Size quoted in £'000, 000

A = Acquired

NI = Not issued at time of data collection

IZAL LIMITED - MARKET ANALYSIS

Size (£'000)

Year	Sample No.	Median	Mean	S. D.	Izal	Score
1967	16	14.45	18.76	37.6	6.73	- 0.32
1968	22	8.43	17.80	27.5	6.81	- 0.40
1969	22	11.02	19.53	28.2	7.70	- 0.42
1970	21	11.34	20.59	31.7	8.52	- 0.38
1971	19	13.19	24.23	31.6	8.74	- 0.49

Return on Capital Employed (%)

Year	Sample No.	Median	Mean	S. D.	Izal	Score
1967	22	15.9	16.6	7.9	29.3	1.61
1968	22	17.1	19.0	8.3	25.0	0.72
1969	22	16.3	19.6	10.0	15.9	0.63
1970	21	15.7	17.8	9.4	19.9	0.22
1971	19	15.1	16.8	5.9	27.1	1.75

SECTION 1 - TRIGGER

1.1

The two observers directly concerned with the acquisitions under discussion described a planning system which was still in the development stage : the regular evaluation of company objectives was not in operation at the time of the first acquisition (Ronuk). Table 1 illustrates the perception of each observer as to the type of planning system in operation.

	Observer 1	Observer 2	Observer 3	Consensus ($=\frac{2}{3}$)
Objectives	Regular Formal	Regular Formal	No System	Regular Formal
Constraints	Informal Irregular	Informal Irregular	No System	Informal Irregular
Strengths and Weaknesses	Informal Irregular	No System	No System	No System
Product/Market Strategy	Informal Irregular	Formal Regular	No System	X X
Monitor & Control System	Formal Regular	Formal Regular	Formal Regular	Formal Regular

TABLE 1 - PLANNING SYSTEM

(Observer 1 described the system of the analysis of external constraints as becoming more formal and regular during 1968/1969)

1.2

Although observer 3 had only been with the company a short period of time, it is interesting to note that his discussions with executives on the topic of planning had not revealed any system, either formal or informal, except in the financial area.

1.3

Disagreement continued when executives described the reasons for the company considering an acquisition policy, although they perceived the signal to be the same in all cases, and, in the case of observers 1 and 2, to be a direct result of the planning system they had previously described.

	Observer 1	Observer 2	Observer 3	Consensus ($=\frac{2}{3}$)
Profitability	√ 1=			
Growth rate of turnover	√ 1=			
P/E				
Type of Products	√ 2	√ 1=		√
Type of Markets	√ 2	√ 1=		
Approaches from other companies			√	

TABLE 2 : SIGNAL FOR ACQUISITION

1.4

Whilst agreeing that the company was operating in market areas which had reached maturity, observers 1 and 2 disagreed as to the relative impact of the signalling factors seen in Table 2.

An improvement in agreement was observed when the two executives were asked to comment on the situation with the benefit of hindsight ; observer 2 would add the P/E ratio to the list and place this factor before the two already mentioned.

1.5

Observer 3 was unaware of any reason for acquisition other than direct approaches from various companies ; the company was 'acquisition-shy.'

SECTION 2 - ELIMINATION

2.1

The examination of products and markets described in section 1 by observers 1 and 2, did indicate the category of company to be considered :

Observer 1	-	Polish market (Technologically and market related.)
Observer 2	-	Local Authority, School and Hospital washrooms. (Market Related).

However, both were in agreement that the company was searching for products which would not directly compete with the 'big boys - Bowater for tissues, ICI and Unilever for chemicals. Conversely, observer 3 was unaware of a search being concentrated in any specific area.

2.2

The three executives described a system of internal company audit adopted prior to acquisition which was consistent with their answers in section 1. Table 3 illustrates.

	Observer 1	Observer 2	Observer 3	Consensus ($=\frac{2}{3}$)
Concept of the business ?	YES	YES	NO	YES
Re-assess objectives ?	YES	NO	NO	NO
Evaluate strengths and weaknesses ?	YES	NO	NO	NO
Seek synergy ?	NO	YES	NO	NO

TABLE 3 : COMPANY AUDIT

2.3

When asked to comment upon the apparent lack of 'self evaluation', observers 2 and 3 felt that it would have been a useful exercise in all cases.

2.4

Concept of the Business

Observers 1 and 2 described the nature of the business as changing over time, the original evaluations being :
"Selling Household and Institutional Products"
(Observer 1)

"House of Hygiene" - (Observer 2)

Although this was correct at the time of the earlier acquisitions, all executives considered that the emphasis should have changed to "consumer based, do-it-yourself items", these products evolving from the Ronuk acquisition.

2.5

Company Objectives

Consistent with previous answers, the only person to perceive any objectives to be specified was observer 1 - the sole area mentioned being that of profitability.
When asked in which areas objectives should have been specified, observer 2 required a wider range than observers 1 and 3. Table 4 illustrates.

Objective	Observer 1	Observer 2	Observer 3	Consensus ($=\frac{2}{3}$)
Profitability	√	√ 1=		√
P/E		√ 1=	√	√
Product development		√ 2=		
Diversification		√ 2=		

TABLE 4 : IDEAL OBJECTIVES

The emphasis upon the financial area by all observers is worthy of note.

2.6

Strengths and Weaknesses

The analysis of strengths and weaknesses which observer 1 perceived to have been carried out, revealed no strengths at all, and one major weakness only - the reliance upon tissue products.

Table 5 shows the strengths and weaknesses which executives felt should have been recognised during the period of acquisition.

	STRENGTHS				WEAKNESSES			
	1	2	3	Consensus	1	2	3	Consensus
Financial								
Liquidity			√3					
Gearing							√2=	
Marketing								
Products		√1=	√1=	√	√1	√1=		√
Markets		√1=				√1=	√3	√
Sales Force			√1=					
Corporate								
Management						√2		
Resource Allocation							√1	
Site			√2				√2=	

TABLE 5 : 'IDEAL' STRENGTHS AND WEAKNESSES

A number of points require further explanation :

(a) The 'potential funds' were seen as a strength which countered the weakness of lack of debt financing within the company.

(b) The Ronuk do-it-yourself products and "washroom markets" were both viewed as major areas of strength by observer 1. Observer 3 viewed the product strength as being the wide range.

(c) Both observers 2 and 3 considered the lack of development of overseas markets to be a weakness.

(d) Observers 1 and 2 agreed that a major weakness was the reliance upon the paper and disinfectant markets which had reached maturity.

(e) Observer 3 stated management was "autocratic and inward-looking", and that no defined personnel policy existed. The "methods of allocating resources between marketing and production were poor".

(f) The possession of a substantial area of unused land on one site, allowed the company the choice to integrate acquired companies within one complex. This countered the need described by observer 3 to develop a management pool from which the company could withdraw executives to manage businesses in other areas.

SECTION 3 : CONCENTRATION

3.1

Only observers 1 and 2 described areas which were studied prior to any final decision being made. Observer 3 was unaware of the existence of any criteria during this time. Table 5 illustrates this situation .

CRITERIA	OBSERVER 1	OBSERVER 2	CONSENSUS (=2/2)
Financial			
Effect on profitability	√		
Size	√	√	√
Marketing			
Products	√	√	√
Production			
Processes used		√	
Corporate			
Management	√		
'Mobility'		√	

TABLE 5 : ACTUAL CRITERIA

Although complete agreement fails to exist, the answers are consistent with those given in previous sections.

When asked to evaluate these criteria with the benefit of hindsight, neither observer would change anything. However, observer 3 would examine many more areas.

Table 6 illustrates.

CRITERIA	Observer 1	Observer 2	Observer 3	Consensus ($=\frac{2}{3}$)
Financial				
Effect on profit - ability.	√		√	√
Effect on P/E			√	
Size	√	√	√	√
Marketing				
Products	√	√	√	√
Markets			√	
Distribution channels			√	
Production				
Type of labour			√	
Processes used		√	√	√
Amount of R&D			√	
Corporate				
Management	√		√	√
'Mobility'		√	√	√

TABLE 6 : IDEAL CRITERIA

3.3

Although observers were asked to rank the criteria in order of importance, insufficient agreement existed to establish an order of ranking on consensus items.

(Kendall's Coefficient of Concordance $W = 0.44$)

SECTION 4 : BID

4.1

All executives agreed that in the case of each acquisition, negotiations were conducted directly with the directors of the company under consideration. In some cases a small part of a group was acquired and in others, the approach itself had come from the other company. The transaction was always a cash one - "it is cheap" (Observer 1), "nodbody wants Newton Chambers shares" (Observer 2), "there was too much cash on the balance sheet" (Observer 3).

4.2

Table 7 shows the perception of observers to the relative cost of the acquisitions.

	Observer 1	Observer 2	Observer 3	Consensus ($=\frac{2}{3}$)
Premium over pre-bid price ? (where appropriate)	NO*	NO	YES	NO
Premium over net asset value ?	NO	YES	YES	YES
Raise maximum price ?	NO**	NO	DON'T KNOW	NO

TABLE 7 : RELATIVE COST OF ACQUISITIONS

* except for Thawpit

** except for Rosalex

SECTION 5 : POST-MERGER

5.1

As described in section 3, one of the criteria used when evaluating a company was the possibility of moving the whole business to the central site. In all cases except one, that of Rosalex, this action was carried out, and all aspects of the business were totally integrated. In the case of Rosalex, the actual move was considered too expensive - nevertheless all marketing and control areas are centred in Ecclesfield.

5.2

As the reason for acquisition was to add new products to the line, no changes were made in this area.

5.3

In all cases, top management was eliminated, and middle management absorbed and re-directed.

5.4

Total agreement also existed amongst observers when asked if the action previously described by them had been pre-planned, their answers being that this had been the case each time.

5.5

Observers 1 and 2, those executives directly concerned with the acquisitions discussed, considered that post-acquisition action was completed during the time originally planned - although refinements took longer than expected (Observer 1) . Observer 3 was under the impression that a much longer time period was needed.

5.6

Were the acquisitions successful ?

Observer 1 - "Yes, on all financial criteria used, viz. growth, profits, return on capital employed."

Observer 2 - "Yes, we made brass."

Observer 3 - "Mixed, when compared with financial criteria ; two above, two below."

BACKGROUND

The group activities are devoted to the manufacture of chemical products and specialised processes, including titanium dioxide pigments, hydrogen peroxide and peroxygen products, and other industrial chemicals.

The activities include mining and quarrying some of the raw materials used.

The subject of this report is an agreement dated June 1970, between Laporte Industries and Solvay et Cie (S. A.) to merge their peroxygen interests.

OBSERVERS INTERVIEWED

Observer	Position	Number of Years	
		In Job	In Company
1	Joint Managing Director		
2	Marketing Director	$\frac{1}{2}$	
3	Joint Managing Director	$1\frac{1}{2}$	15

LAPORTE - FINANCIAL ANALYSIS

	1967	1968	1969	1970	1971
Turnover	33, 542	36, 693	42, 017	47, 227	46, 282
Net Worth	29, 315	30, 314	30, 306	31, 762	31, 197
Net Assets	40, 134	41, 809	50, 936	56, 862	61, 291
PBIT	4, 793	5, 352	5, 880	6, 161	4, 802
PAT	2, 501	2, 661	2, 750	2, 684	1, 948
No. Employees	—	—	6, 007	5, 757	5, 616
No. Shares	32, 150	32, 150	32, 150	32, 150	32, 150
Gross Margin	14.3	14.6	14.0	13.1	10.4
Net Margin	7.5	7.3	6.5	5.7	4.2
Return on net assets	11.9	12.8	11.5	10.9	7.8
Return on net worth	8.5	8.8	9.1	8.4	6.2
Asset Turnover	1.14	1.22	1.40	1.49	1.48
Dividend Cover	1.2	1.3	1.3	1.2	1.3
Current Ratio	1.9	1.7	2.3	1.9	2.2
Acid Test	1.1	1.0	1.4	1.1	1.2
Debtors (days)	81	102	109	102	107
Gearing	20.4	19.2	30.4	32.4	37.4
Turnover per employee (£)	—	—	7, 000	8, 200	8, 250
Earnings per share (p)	7.6	8.1	8.4	8.2	5.9
Net assets per share (£)	1.25	1.30	1.57	1.81	1.91

BRITISH OXYGEN, LAPORTE, IZAL - MARKET PERFORMANCE (BOT 26/4)

	1967		1968		1969		1970		1971	
	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI
Albright & Wilson	105. 9	6.8	111. 9	6.6	120. 5	5.0	129. 0	5.2	123. 9	5.9
Fisons	78.43	7.2	86.42	10.9	82.23	11.3	88.11	8.0	90.09	15.3
Coalite	12.68	26.8	15.74	30.0	18.80	37.5	19.87	35.2	22.70	28.3
Croda	17.07	16.1	26.85	14.7	28.02	15.9	37.26	16.0	51.16	15.2
Berk	15.94	7.3	17.12	13.3	21.35	13.0	A	A	A	A
Hickson & Welch	—	20.3	10.20	18.3	14.08	14.9	17.01	15.7	19.18	18.4
Midland Yorkshire Tar Distillers	6.34	10.3	12.59	11.7	11.26	11.1	11.34	11.5	11.42	7.8
Coates Brothers	—	27.3	16.53	28.2	18.87	27.0	22.82	26.1	25. 7	27.1
Ault & Wiberg	—	15.7	10.81	15.9	12.61	16.6	13.18	13.6	13.19	15.1
Yorkshire Dyeware	4.47	11.9	4.93	15.0	5.83	14.4	6.38	15.0	7.98	20.6
Cooper. McDougall and Robertson	16.02	30.8	19.01	40.0	22.92	44.5	24.85	42.5	A	A
Philblack	3.49	20.0	4.11	26.4	5.34	33.4	5.09	21.0	5.39	14.4
Fleming	—	22.1	5.78	20.8	6.00	20.2	6.71	17.6	7.30	14.4
Revertex	8.44	19.8	9.26	23.5	12.70	23.8	16.17	16.2	17.77	13.0
National Carbonising	5.52	9.7	5.70	11.8	6.27	16.4	10.76	27.4	20.06	26.0
Jeyes	7.85	15.3	8.69	23.4	12.83	16.3	15.00	14.1	17.96	14.9
Sturge	3.40	19.3	3.95	19.0	4.56	17.4	4.56	8.2	5.31	15.1
Burrell	—	13.8	3.12	13.1	3.45	13.2	3.71	15.8	3.66	16.0
Holliday	—	3.4	3.45	9.0	3.75	10.0	3.73	8.6	4.38	15.1
Scottish Tar	2.56	9.3	2.90	14.7	3.60	21.4	3.52	21.3	NI	NI
Holt Products	4.26	31.0	4.51	29.8	5.51	34.4	5.51	25.0	6.06	22.0
Anchor Chemicals	6.60	20.8	8.17	22.1	9.21	13.8	7.38	10.1	6.18	15.0

Size quoted in £'000,000

A = Acquired

NI = Not issued at time of data collection

LAPORTE - MARKET ANALYSIS

Size (£'000,000)

	Sample No.	Median	Mean	S. D.	Laporte	Score
1967	16	14.45	18.76	37.6	33.54	0.39
1968	22	8.43	17.80	27.5	36.69	0.69
1969	22	11.02	19.53	28.2	42.02	0.80
1970	21	11.34	20.59	31.7	47.23	0.84
1971	19	13.19	24.23	31.6	46.28	0.76

Return on Capital (%)

	Sample No.	Median	Mean	S. D.	Laporte	Score
1967	22	15.9	16.6	7.94	11.9	- 0.59
1968	22	17.1	19.0	8.26	12.8	- 0.75
1969	22	16.3	19.6	10.00	11.5	- 0.81
1970	21	15.7	17.8	9.36	10.9	- 0.74
1971	19	15.1	16.8	5.90	7.8	- 1.53

SECTION 1 - TRIGGER

1.1

Executives described the system of planning which was in operation prior to the merger discussed, as being almost completely formal and regular.

	Formality	Regularity
Objectives ($\frac{2}{3}$)	Formal	Regular
Constraints ($\frac{2}{3}$)	Formal	Regular
Strengths and Weaknesses ($\frac{2}{3}$)	Informal	Regular
Product/Market Strategy (3/3)	Formal	Regular
Control Systems (3/3)	Formal	Regular

TABLE 1 : PLANNING SYSTEM - CONSENSUS ANSWERS

N.B. The figures in brackets indicate the level of consensus.

The level of agreement is higher than that of any other company in the sample.

1.2

Both observers who were directly concerned stated that no specific signal had shown the need to acquire prior to the Solvay et Cie negotiations. Observer 3 explained however that the Board had for some time been pre-occupied with growth by diversification rather than by intensification ; this growth to be obtained by acquisition - an incorrect strategy in his opinion. The original reason for the company considering any arrangement with Solvay et Cie was an approach from the company itself. The first proposition concerned a possible joint development of the chloride process for developing titanium dioxide. This was rejected by Laporte, who made a counter suggestion concerning peroxygen.

In contrast, observer 3 described an increasing awareness of the restrictive size of U.K. markets which led to the search for similar companies overseas - a direct result of the planning system.

1.3

When asked to describe factors which should have been recognised at that time as signalling the need to consider acquisition, executives described a number, although the level of agreement is low - see Table 2.

	Observer 1	Observer 2	Observer 3	Consensus $=(\frac{2}{3})$
Financial				
Liquidity	1			
P/E Ratio			1	
Marketing				
Type of Products		3		
Changing Markets		2		
No. and size of customers			2=	
Market size	2=	1		√
Market Share	2=			
Production				
No. of raw material suppliers	3	4	2=	√
Technological strength		5		

TABLE 2 : RANKING OF IDEAL SIGNAL FACTORS

It is interesting to note the awareness of a dependence on raw material suppliers, particularly in view of later acquisition and merger decisions.

SECTION 2 : ELIMINATION

2.1

Consistent with his answers in the previous section, observer 2 explained that the signal focussed an acquisition search upon overseas companies which were technologically and market related.

2.2

A complete internal company audit was made prior to the final decision to merge. Table 3 shows the extent of agreement amongst executives. All were of the opinion that the company was deliberately seeking synergy both in the technological development and marketing areas when suggesting a merging of peroxygen interests to the executives of Solvay et Cie.

	Observer 1	Observer 2	Observer 3	Consensus
Consider Concept of the Business ?	YES	NO	YES	YES
Evaluate Company Objectives ?	YES	YES	YES	YES
Evaluate Strengths & Weaknesses ?	YES	YES	YES	YES
Seek Synergy ?	YES	YES	YES	YES

TABLE 3 : COMPANY AUDIT

2.3

Concept of the Business

Although observer 2 perceived that the company had not probed this question at the time considered, he did feel that it would have been a useful exercise. The resultant evaluation should have been a "Chemical

Company ". Observers 1 and 3 were not in accord as to the result of the evaluation made, although each viewed his perception to be correct. Observer 1 described the Company as being "International Specialists" and observer 2 as being a "Specialised Chemical Company of medium size". In all three cases, the description would fit Laporte post-merger.

2.4

Company Objectives

Table 4 shows those areas in which executives perceived prime objectives to be specified at the time of the merger.

OBJECTIVE	Observer 1	Observer 2	Observer 3	Consensus
Financial				
Liquidity	1			
Profitability	3	2	1=	√
P/E			1=	
Growth			2	
Marketing				
Penetration	2=			
Product development	2=	1=	3=	√
Market development		1=	3=	√
Corporate				
"Increase calibre of staff" (Productivity)			3=	

TABLE 4 :: ACTUAL OBJECTIVES

The consensus items of 'product development' and 'market development' and the penetration objective quoted by observer 1, are inconsistent with the view of both observers 1 and 3 that the Board was seeking growth by diversification, but are consistent with the nerger which took place.

2.5

Although disagreeing on actual objectives, the two executives concerned with the negotiations were satisfied with their perception of the situation. However, observer 3 would add substantially to the list of specified objectives, thus increasing the consensus items, as shown in Table 5.

OBJECTIVE	Observer 1	Observer 2	Observer 3	Consensus
Financial				
Liquidity	1	1		√
Profitability	3	2	1=	√
P/E			1=	
Growth			2	
Marketing				
Penetration	2=			
Product development	2=	5=	3=	√
Market development		5=	3=	√
Diversification		5=		
Corporate				
Industrial relations		3		
Company Image		6		
Productivity		4	3=	√

TABLE 5 : IDEAL OBJECTIVES

2.6

In the case of both actual and ideal objectives, insufficient agreement existed amongst executives to establish an order of ranking.

Actual objectives ; Kendalls coefficient of concordance $= 0.11$, $X^2 = 0.66$, 5% SL = 5.99

Ideal objectives ; Kendalls coefficient of concordance $= 0.27$, $X^2 = 3.24$, 5% SL = 9.49

2.7

Strengths and Weaknesses

Substantial disagreement existed when executives were asked to describe the results of the strengths and weakness analysis. See Table 6.

	STRENGTHS				WEAKNESSES			
	1	2	3	Consensus	1	2	3	Consensus
Financial								
Liquidity	√							
Gearing	√						√	
Size (medium)							√	
Marketing								
Types of markets	√							
Size of markets						√		
Channels	√							
Production								
Technology	√	√	√	√1				
Distribution	√							
Corporate								
Management	√		√	√2	√		√	√

TABLE 6 : COMPANY STRENGTHS AND WEAKNESSES

It is worth noting that the gearing position of Laporte was viewed by observer 1 as a major strength and by observer 2 as a major weakness.

Management embodied both major strengths and weakness : this point is clarified in Table 7.

	STRENGTH	WEAKNESS
Observer 1	Middle Management	Top Management - "too political"
Observer 2	No beaurocracy - best abilities were used	Nepotism in top management

TABLE 7 : STRENGTHS & WEAKNESSES OF MANAGEMENT

SECTION 3 : CONCENTRATION

3.1

When asked which areas were explored in detail prior to a final decision being made, the two executives directly concerned with negotiations agreed on three. Table 8 illustrates.

	Observer 1	Observer 2	Consensus (=2/2)
Financial			
Effect on gearing		2	
Effect on P/E		3=	
Size	2		
Marketing			
Type of Product	1=	1=	√ 1=
New Markets	1=	3=	√ 2
Impact on customers		3=	
Production			
Impact on other chemical companies re. raw materials	1=	1=	√ 1=
Technological strength	1=	1=	√ 1=

TABLE 8 : CRITERIA

The gearing criterion was concerned with a possible loan by Solvay et Cie as part of the deal. Although there is disagreement between the two observers, their answers on all the pre-merger procedure are internally consistent.

3.2

Observer 2 was unaware of the specific areas which were examined but with the benefit of hindsight would choose the three consensus items. Neither of the other two executives would change the situation.

SECTION 4 : BID

4.1

As described previously, the negotiations were a direct result of an approach from Solvay et Cie, and were conducted with the senior executives of that company. The only exchange of cash which took place was in the form of a £9m loan by Solvay et Cie to Laporte. Both executives commented that arrangements became protracted because of the complicated nature of the legal requirements. Observer 1 felt that Laporte had been hampered by the lack of a competent financial executive.

SECTION 5 : POST-MERGER

5.1

Almost complete agreement existed amongst observers as to the action taken post merger. The consensus answers are described below :

Asset Structure	For taxation reasons, it was necessary to set up separate companies in each country in which the group, Interox, wished to operate. These companies are jointly owned on a 50/50 base by Laporte and Solvay et Cie. Prior to negotiations reaching a fairly advanced stage, neither of the observers involved were aware of this requirement. Observer 2 was under the impression that this action had been planned from the start.
Marketing	The selling function was centralised and a co-ordinating group set up. The market development activities were combined.
Production & Development	Study groups were set up within plants with the objective of merging the best technology of both companies. Some new plants are in the process of being built, but otherwise facilities have been left alone.
Corporate	There was no change in the management of plants. The combined operations were named Interox.

Organisation	The organisation structure in each plant was left intact and co-ordinating groups were set up in the fields of Production, R & D, Finance and Marketing.
Control Systems	Both observers 2 and 3 explained that the information system used by Solvay et Cie was not as good as that used by Laporte. An attempt has been made to set up comparable data and accounting systems, both for management control purposes and for the purpose of consolidated balance sheets. Although this action had been planned, the co-ordinating group has encountered more difficulties than anticipated.

The action taken in the areas of production, marketing, corporate and organisation was pre-planned and in the opinion of all executives interviewed, was correct.

5.2

All executives agreed that the re-organisation took approximately two years and in the opinion of observer 1, was on schedule. Observers 2 and 3 were of the opinion that it took 9 months longer than anticipated.

5.3

All were in agreement that the merger had been successful, but differed in their reasons as shown below :

Observer 1 ;	"No reason to say otherwise."
Observer 2 :	"We did'nt suffer any disadvantage"
Observer 3 ;	"Had we not done it, we would have been in more trouble than we are."

BACKGROUND

The Group distributes new and second-hand car, commercial vehicles and tractors, through depots situated in the Midlands East Anglia, London and the South and Manchester. A small part of the group (3% of the 1970/71 turnover and 6% of profits) is concerned with electrical contracting and making school and office furniture.

The interviews cover a series of small acquisitions made during the years 1966 - 1972 .

OBSERVERS INTERVIEWED

Observer	Position	No. of Years	
		In Job	In Company
1	Financial Director	1.5	14
2	Chief Executive	0.5	22

MANN-EGERTON - FINANCIAL PERFORMANCE

(000)	1967	1968	1969	1970	1971
Turnover	25,525	33,500	47,800	51,500	57,630
Net Worth	3,498	4,331	6,777	6,956	7,256
Net Assets	5,446	6,995	10,836	10,882	10,967
PBIT	773	966	1,326	1,385	1,632
PAT	330	388	471	536	795
No. Employees	—	3,551	—	4,625	4,537
No. Shares ('000)	4,212	5,056	7,264	7,264	7,264
Gross Margin	3.4	2.9	2.8	2.7	2.8
Net Margin	1.3	1.16	0.96	1.04	1.38
Return on net assets	14.2	13.8	12.3	12.7	14.9
Return on net worth	9.5	9.0	7.0	7.7	10.9
Asset Turnover	7.3	7.7	7.1	7.4	7.9
Dividend Cover	1.82	1.89	1.48	1.55	1.95
Current Ratio	1.39	1.74	1.53	1.63	1.56
Acid Test	0.51	0.73	0.57	0.65	0.62
Debtors (days)	23	23	26.5	24.5	27
Gearing	35.8	38.0	37.4	36.2	34.8
Cost of capital (%)	4.2	4.3	4.6	4.9	4.4
Turnover/Employee (£)	—	9,450	—	11,100	12,700
Earnings per share (p)	7.8	7.7	6.5	7.4	10.9
Net assets per share (£)	1.30	1.39	1.50	1.50	1.51

MANN - EGERTON - MARKET ANALYSIS (SIC 894 BOT 88/5)

	1967		1968		1969		1970		1971	
	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI
Kenning Motor	63.79	7.5	72.75	10.4	75.02	9.8	80.48	9.4	91.06	9.8
Henleys	39.51	12.4	55.96	17.2	69.63	12.1	73.47	9.1	90.92	11.6
Bristol Street Group	26. 4	9.3	30. 5	7.6	31. 0	7.2	35. 5	10.7	50.20	9.8
Lex Service Group	25.54	15.1	32.61	14.7	45.18	13.3	85.02	12.8	111.32	14.0
Wadham Stringer	NQ	NQ	NQ	NQ	25.90	8.4	28.24	10.6	36.14	13.6
Davis (Godfrey)	10.48	9.9	11.52	11.4	11.72	13.0	12.45	13.6	14.94	12.2
Steels Garages	21.13	9.8	28.12	13.2	A	A	A	A	A	A
Appleyard Group	12.95	9.0	14.94	9.8	25.41	8.7	29.84	10.5	38.85	11.4
Caffyns	11.42	11.8	12.67	14.2	12.66	13.0	13.48	9.7	15.36	13.5
Hanger Investments	7.42	12.5	9.35	9.7	11.28	Loss	10.42	8.5	10.69	8.0
Braid Group	9.80	10.9	10.20	13.5	11.00	11.2	10.70	12.2	13.75	14.2
Western Motor	4.99	—	6.03	13.5	7.55	9.4	8.65	8.1	NI	NI
Hollingdrake Motor	—	11.2	12.90	14.9	13.20	8.4	13.26	11.4	17.71	20.6
Kings Motor	4.32	Loss	4.58	5.9	4.08	Loss	A	A	A	A
Thompson - Reid	—	10.0	—	12.2	7.05	14.3	8.1	14.4	—	12.4
Godfreys	4.39	6.3	5.08	16.0	4.98	15.5	6.38	25.6	7.82	25.8
Glanfield-Lawrence	4.12	5.3	4.55	8.5	4.42	5.1	4.46	6.8	5.53	9.3
Jessups (Holdings)	2.99	16.8	4.18	21.6	4.21	7.9	3.98	11.0	6.62	17.3
Camden Group	—	14.2	3.64	10.9	3.61	19.0	4.60	25.0	5.16	26.2
Inbucon	3.19	34.3	3.42	29.9	A	A	A	A	A	A
Mann-Overton	—	20.9	2.23	20.4	2.24	20.6	2.78	22.9	3.95	24.7
Mason (Frank)	—	6.5	—	4.5	1.69	4.3	1.65	5.6	1.64	5.7
ARV Holdings	3.32	1.9	3.35	5.1	3.19	4.5	A	A	A	A
Woodward (H)	2.75	21.8	3.30	25.6	3.62	25.5	4.71	33.8	4.03	21.9
Tate of Leeds	4.56	15.6	5.39	11.1	5.70	2.9	6.01	8.1	5.70	7.4
Clarke(George)Motors	—	13.4	1.80	21.4	1.49	15.3	1.70	14.4	1.99	11.8
Young (H) Motors	3.24	14.1	3.43	16.6	3.45	16.3	4.14	11.7	3.72	7.5
Kirbys	4.21	Loss	3.78	19.0	3.24	Loss	3.54	Loss	NI	NI
Manchester Garages	4.49	—	4.70	9.3	4.26	Loss	4.22	25.0	NI	NI

A = Acquired NI = Not issued at time of data collection

NQ = Not quoted

MANN - EGERTON - MARKET COMPARISON

Size (£'000, 000)

	Sample No.	Median	Mean	S. D.	Mann Egerton	Score
1967	22	6. 21	12. 5	15. 0	25. 5	0. 86
1968	26	5. 33	13. 5	17. 4	33. 5	1. 15
1969	27	5. 70	14. 7	19. 5	47. 8	1. 70
1970	25	8.	18. 3	24. 8	51. 5	1. 33
1971	21	10. 69	25. 6	33. 0	57. 6	0. 97

Return on Capital (%)

	Sample No.	Median	Mean	S. D.	Mann Egerton	Score
1967	26	11. 5	11. 5	7. 9	14. 2	0. 34
1968	28	11. 25	13. 9	6. 0	13. 8	- 0. 01
1969	27	9. 8	9. 8	7. 4	12. 3	0. 34
1970	25	10. 6	13. 2	5. 7	12. 7	- 0. 09
1971	22	12. 0	14. 0	6. 2	14. 9	0. 14

SECTION 1 - TRIGGER

1.1

Little agreement existed in executive's perception of the type of planning system in operation during the period under discussion. Table 1 shows the answers of the two observers :

AREA	Observer 1	Observer 2	Consensus
Objectives	No system	Formal Regular	X X
Constraints	Formal Irregular	No system	X X
Strengths and Weaknesses	Formal Irregular	Formal Regular	√ X
Product/Market Strategy	Formal Irregular	Not Applicable	X X
Control Systems	Formal Regular	Formal Regular	√ √

TABLE 1 : PLANNING SYSTEM

1.2

The lack of agreement continued when executives were asked to describe the original reason for the company considering growth by acquisition. Observer 1 perceived the signal to be the need for more garages or outlets, this being the result of the planning system previously described. However, specific acquisitions were the result of direct suggestions from the motor manufacturers, who granted the franchise, or from garage owners who wished to be acquired.

In direct contrast, observer 2 considered the moves to be defensive rather than offensive - the factor which signalled the need to acquire being the size and growth rate of the company relative to the size of the market in which it was operating : this evaluation did not emanate from the planning system described.

1.3

Table 2 shows the factors which with the benefit of hindsight, observers considered were important as a signal for the need to acquire.

FACTOR	Observer 1	Observer 2
P/E Ratio	1	
Market Share		1
Distribution channels	2	

TABLE 2 : RANKING OF IDEAL SIGNAL FACTORS

Two points are worth noting :

(1) The executive who considered the P/E Ratio to be of prime importance was the Financial Director.

(2) Observer 2 commented that the company's "thoughts were not as sophisticated as the stock market."

SECTION 2 : ELIMINATION

2.1

Both observers previously described signals in the marketing area related to the need for growth ; and these were seen to point directly to a specific type of company, viz. Motor/Garage Trade. On other words, companies which were related in the marketing field.

2.2

Table 3 shows the extent of internal company audit prior to a final decision.

	Observer 1	Observer 2	Consensus
1 Consider concept of Business ?	YES	YES	YES
2 Re-assess Company Objectives ?	NO	YES	No consensus
3 Evaluate strengths and weaknesses ?	YES	YES	YES
4 Seek synergy ?	NO	NO	NO

TABLE 3 : COMPANY AUDIT

2.3

Concept of the Business

The concept of the Business was evaluated as "selling and mending cars - we are dealers." In the view of both executives, this was a correct evaluation.

2.4

Company Objectives

Observer 1 perceived no objectives to exist during the years under discussion, whilst observer 2 perceived them to be specified in one area - that of profitability. However, both observers were dissatisfied with this position and would have identified the objectives shown in Table 4.

OBJECTIVE	Observer 1	Observer 2	Consensus
Profitability	2	1	✓
P/E	1		✗
Product Development		2	✗
Company Image	3		✗

TABLE 4 : RANKING OF IDEAL OBJECTIVES

The replies of both observers with relation to P/E ratio are consistent with the previous replies seen in Section One.

The objective of 'product development' referred particularly to the need to introduce more "stability" into the business by developing a "better repair system."

2.5

Strengths and Weaknesses

Consistent with their answers in Section One on the type of planning system in operation, both observers agreed that a strengths and weakness analysis had been carried out prior to each acquisition. The resultant analysis had not varied over time. However, there was little agreement as to the nature of the analysis : this is shown in Table 5.

	STRENGTHS			WEAKNESSES		
	1	2	Consensus	1	2	Consensus
Financial						NO CONSENSUS
Profitability	1=					
P/E	1=	3	√			
Marketing						
Markets				1=		
Distribution channels				1=		
Corporate						
Management	1=	1	√		1	
Image		2				
Control Systems	2					

TABLE 5 : RANKING OF STRENGTHS AND WEAKNESSES

A number of points require comment :

(1) The weakness of 'distribution channels' was perceived by observer 1 to be "too many small depots", his observation being consistent with his perception of signals for acquisition.

(2) The 'company image' was seen by observer 1 as "establishment, tradition, discipline."

(3) The weakness of 'markets' was described by observer 1 to be the "vulnerability of the franchise business."

(4) Observer 4 described management during the acquisition period to be :

(i) a strength - firm leadership

(ii) a weakness - there was an excess of "mini-tycoonery".

2.6

Although, substantial disagreement existed, observers would not change their evaluation with the benefit of hindsight.

SECTION 3 : CONCENTRATION

3.1

Both observers agreed that formal criteria were set up prior to a final decision. Table 6 illustrates :

CRITERIA	Observer 1	Observer 2	Consensus
Financial			
Effect on profitability	√ 1=	√ 1	√ 1
Effect on P/E	√ 1=		
Size	√ 1=		
Marketing			
Distribution Channels (location)	√ 3=	√ 3	√ 3
Corporate			
Management	√ 2	√ 2	√ 2
'Attractiveness'		√ 4	

TABLE 6 : RANKING OF CRITERIA

3.2

The criteria of effect on profitability, and location of distribution channels, agreed by both observers, are consistent with their answers in the two previous sections.

3.3

The criterion of management is one of ability and compatibility with the parent company, combined with the practicability of management substitution.

SECTION 4 : BID

4.1

Complete agreement existed on the procedure adopted in almost all cases. As previously explained, an approach normally came from the owner or the motor manufacturer holding the franchise. Negotiations were normally conducted with the owner or chairman ("We always go direct, we are traditionally dealers" - observer 2)

4.2

Small companies were acquired for cash whilst shares and loan stock were used in the acquisition of the larger ones.

4.3

It was rarely necessary to pay a premium over net asset value.

4.4

The price paid never exceeded the maximum price set by the company prior to negotiations.

SECTION 5 : POST-MERGER

5.1

Substantial agreement also existed as to the action normally taken post-acquisition. The answers are shown below :

(a) Asset Structure :	The assets were sold to the Holding Company. It was not possible to take any other action because of the franchises held by the motor manufacturers.
(b) Marketing :	The changes made here were more in the area of sales technique and showroom discipline. The objective being to impose a corporate image of quality and uniformity throughout the organisation.
(c) Products :	It was not possible to make changes due to the limitations of the franchises. However, observer 2 explained that it was usually necessary to put money into new acquisitions in two areas - used cars and new equipment for the showroom and workshop.
(d) Corporate :	The top management of the acquired company was usually replaced.
(e) Organisation :	The seat of power was moved to Group Headquarters in Norwich and the manager

retained power over local matters. In other words, the company was absorbed into the regional structure.

(f) Control Systems : The Group accounting and reporting methods were introduced.

5.2

When given the opportunity to recommend change, with the benefit of hindsight, observer 1 was satisfied with the existing procedure. Observer 2 would change the approach - "be much more specific and factual prior to any action, particularly towards existing management. Assessments had tended to be emotive rather than analytical, and we under-estimated resources needed.

5.3

All action described, except the need to replace top management, was agreed by both observers to have been planned prior to acquisition.

5.4

Observers were not in agreement on the amount of time taken to complete planned action. Observer 1 perceived the action to take less time than anticipated and observer 2 more time.

5.5

Both were in agreement, however, that the series of acquisitions had been successful, their criteria being an increase in both net profit and earnings per share.

Background

Marwin holdings was founded in 1957 by the present Chairman. The company manufactures a wide range of engineering tools and cuting tools. During 1971, the division of Marwin Machine Tools acquired a local company Ashwell and Nesbit, which comprised a foundry and and Machine Tool division. The acquisition is the subject of this report.

OBSERVERS INTERVIEWED

OBSERVER	POSITION	NUMBER OF YEARS	
		In Job	In Company
1	Industrial Relations	3	3
2	Financial Director	8	8
3	Chairman	17	17
4	Managing Director - Marwin Machine Tools	4	2

MARWIN HOLDINGS: FINANCIAL ANALYSIS

(£'000)	1967	1968	1969	1970	1971
Turnover	1651	3627	4584	6164	
Net Worth	360	576	1495	1673	
Net Assets	360	776	1695	2691	N
PBIT	273	514	393	476	O
PAT	152	216	214	254	T
No. shares	210,000	233,330	233,330	233,330	
Gross Margin	16.5	14.2	8.6	7.7	A
Net Margin	9.2	5.9	4.7	4.1	V
Return on Net Worth	42.0	37.4	14.3	15.2	A
Return on Net Assets	76.0	66.0	23.2	17.7	I
Asset Turnover	4.6	4.7	2.7	2.3	L
					A
Current Ratio	1.05	1.22	1.23	1.35	B
Acid Test	0.63	0.78	0.57	0.79	L
Debtors	152	149	142	182	E
Gearing	0	24.8	11.8	37.0	
Coverage	-	22.2	10.5	3.3	
Net Assets/share (£)	1.71	3.34	7.30	11.5	
Earnings/share (£)	0.72	0.93	0.92	1.09	

MARWIN MACHINE TOOLS: FINANCIAL ANALYSIS

(£'000)	1967	1968	1969	1970	1971 *
Turnover	NA	NA	3105	4364	6048
PBIT	102	93	87	46	LOSS
PAT	64	53	52	29	LOSS
Net Worth	105	168	220	250	71
Net Assets	105	168	220	350	71
Gross Margin	NA	NA	2.8	1.05	LOSS
Net Margin	NA	NA	1.7	0.67	LOSS
Return on Net Worth	61.0	31.0	23.6	11.6	LOSS
Return on Net Assets	97.0	55.0	39.6	13.1	LOSS
Asset Turnover	NA	NA	14.0	12.5	56.78
Current Ratio	1.01	0.98	0.97	1.03	1.70
Acid test	0.74	0.62	0.55	0.72	0.59
Debtors (days)	NA	NA	140	186	154
Gearing	0	0	0	28.6	0
Coverage	-	-	-	6.7	-

* 18 months

MARWIN HOLDINGS VERSUS MARWIN MACHINE TOOLS

	SIZE (£'000)			ROCE		
	Group	Machine Tools	%	Group	Machine Tools	HIGH/LOW
1967	1651	NA	-	76.0	97.0	HIGH
1968	3627	NA	-	66.0	55.0	LOW
1969	4584	3105	68	23.2	39.6	HIGH
1970	6164	4364	71	17.7	13.1	LOW
1971		N O T	A V A I	L A B L	E	

MARWIN MACHINE TOOLS: MARKET DATA

	1967		1968		1969		1970		1971	
	SIZE	ROCE	SIZE	ROCE	SIZE	ROCE	SIZE	ROCE	SIZE	ROCE
Alfred Herbert	44.1	12.3	39.78	6.2	45.55	1.3	46.97	3.8	37.72	LOSS
Elliot (B)	15.00	9.9	20.74	8.5	23.49	3.2	24.85	7.7	26.96	8.8
Scragg (Ernest)	6.45	42.3	13.64	62.3	25.94	69.6	17.19	LOSS	16.76	12.9
Sheffield Twist & Steel	5.15	13.9	5.68	15.1	6.95	16.9	8.94	17.4	NA	NA
Newall Machine Tool	3.92	11.6	3.13	14.7	5.16	15.7	5.71	16.0	6.05	NA
Jones (AA) Shipman	4.51	22.4	5.24	25.1	5.61	23.0	6.22	21.4	5.63	17.6
Kearney & Trecker	5.92	NA	5.85	NA	6.75	NA	7.18	NA	6.50	NA
British Northrop	6.18	LOSS	3.56	LOSS	1.54	LOSS	1.37	LOSS	1.97	11.2
Hunt & Moscrop	1.88	21.2	1.78	15.0	2.39	19.8	2.83	20.0	3.32	24.6
Johnson Construction	NQ	15.9	1.21	15.5	1.17	7.4	1.09	11.4	1.17	8.6
Smith Holding (Whitworth	0.41	3.2	0.69	28.3	0.53	3.8	0.65	1.4	0.87	1.3
Abwood Machine Tools	0.29	20.0	0.29	18.7	0.28	15.9	0.35	17.8	0.38	2.7

MARWIN MACHINE TOOLS - MARKET ANALYSIS

SIZE: £'000,000

	NUMBER	MEDIAN	MEAN	S.D.	MARWIN	SCORE
1967	11	5.15	8.53	12.44	N.A.	-
1968	12	4.40	8.47	11.50	N.A.	-
1969	12	5.38	10.45	14.0	3.10	-0.52
1970	12	5.96	10.28	13.70	4.36	-0.43
1970	11	5.63	9.76	12.28	4.03 *	-0.47

* Estimated

ROCE: %

	NUMBER	MEDIAN	MEAN	S.D.	MARWIN	SCORE
1967	11	13.6	15.70	11.26	97.0	7.22
1968	11	15.1	19.04	16.41	55.0	2.19
1969	11	15.7	16.05	19.50	39.6	1.21
1970	11	11.4	10.63	8.35	13.1	0.30
1971	9	8.8	9.74	8.00	LOSS	-1.22

SECTION 1 : TRIGGER

1.1

A substantial amount of agreement existed amongst executives when they were asked to describe the extent of corporate planning in existance prior to the acquisition discussed. Table 1 demonstrates this point :

	Observer 1	Observer 2	Observer 3	Observer 4	Consensus ($=\frac{3}{4}$)
Objectives	No system	No system	No system	No system	No system
External Constraints	No system	No system	No system	Formal Irregular	No system
Strengths & Weaknesses	No system	No system	No system	No system	No system
Product/Market Strategy	No system	No system	Formal Regular	Informal Regular	X
Monitor and Control system	Formal Regular	Formal Regular	Formal Regular	Formal Regular	Formal Regular

TABLE 1 : COMPANY PLANNING SYSTEM

1.2

Consistent with this analysis, executives considered that a formal planning system had not signalled the need to acquire ; indeed both Observers 2 and 4 were of the opinion that there was no necessity for an acquisition at that time. Both these executives were under the impression that the initial approach had come from ICFC, who viewed Marwin as good potential problem solvers - "We were conned into it " (Observer 4). In contrast, observers described two major factors which prompted the company to consider acquisition, viz.

1 Limited markets - the company had no entree into the USA.

2 Lack of space - the existing Marwin site being too small for the growth in the size of the order book.

This latter point was commented upon by Observer 4 when describing pre-decision criteria : he felt that if the company had done even a small amount of arithmetic, the results would certainly have eliminated Ashwell and Nesbit as a possible acquisition. Observer 3 explained that quality and production control problems, which were a result of the company not being involved in the 'complete process' of design, development, manufacture and selling, had highlighted the need to consider acquisition and that this was correctly recognised at the time.

SECTION 2 : ELIMINATION

2.1

Consistent with their answers in the previous section Observers 2 and 4 explained that the approach by ICFC had focussed upon the specific company subsequently acquired. The signal as described by Observer 3 also focussed upon the same specific company - the major supplier of foundry items. In contrast, Observer 1 was under the impression that the company had considered a number of possibilities, all of which were in the Machine Tool market.

2.2

Some disagreement existed amongst observers as to the extent of internal company audit prior to a final decision to acquire and also upon the possible value of such an exercise at that time. There is a significant change in consensus opinions. Table 2 illustrates :

	Answer				Consensus	* Useful ?				Consensus
	1	2	3	4	$(= \frac{3}{4})$	1	2	3	4	$(= \frac{3}{4})$
Consider Concept of Business ?	Yes	No	No	No	NO	Yes	Yes	Yes	No	YES
Evaluate Company Objectives ?	No	No	No	No	NO	Yes	Yes	No	No	No consensus
Appraise Corporate strengths and weaknesses ?	No	No	No	No	NO	Yes	Yes	No	Yes	YES
Seek Synergy ?	No	No	Yes	No	NO	Yes	Yes	Yes	Yes	YES

TABLE 2 : COMPANY AUDIT

* Would it have been useful to conduct this analysis ?

Some of these answers required further comment - Observer 3 explained that such an analysis would have been of limited value since during the whole period of its existence the company had been growing at a very fast rate and consequently the periods of stability were very short.

Observer 4 gave his reasons for rejecting such an analysis as :

(1) the executives were not mature enough to cope

(2) the executives wanted to acquire Ashwell and Nesbit

(3) the acquisition was the solution to a production problem.

2.3[3]

Concept of the Business

Observer 1 perceived that the company had correctly decided that it was in all branches of the Machine Tool business. Although both observers 2 and 3 agreed with this in broad outline, with the benefit of hindsight, both would have limited the business to the "design, development and selling of machine tools." Thus excluding manufacture.
This evaluation is a direct result of the drastic drop in orders which the industry as a whole experienced.

2.4

Company Objectives

Although Observers 2 and 4 did not perceive an evaluation of corporate objectives to have taken place at the time, certain 'aims' were implicit in the running of the company. In each case, the executive felt that these areas of concentration should have been the ones in which objectives were specified. See Table 3 :

	Observer 1	Observer 2	Observer 3 *	Observer 4	Consensus ($\doteq \frac{3}{4}$)
Profitability	√	√2	N		NO
Market penetration		√1=	O	√	CONSENSUS
Product development		√1=	N		
			E		

TABLE 3 : IDEAL CORPORATE OBJECTIVES

* see Section 2.2 for an explanation.

2.5

Some agreement existed amongst the three observers who evaluated company strengths and weaknesses - Table 4 shows their evaluation :

	STRENGTHS				WEAKNESSES			
	1	2	4	Consensus ($= \frac{2}{3}$)	1	2	4	Consensus ($= \frac{2}{3}$)
Financial :								
Liquidity						√1=		
Marketing :								
Products		√1=	√1=	√1=	N			
Direct selling			√2=		O			
					N			
Production :					E			
Technological Expertise	√1=	√1=		√1=				
Corporate :								
Management	√1=		√2=	√2		√1=	√1	√
Planning system							√2	

TABLE 4 : COMPANY STRENGTHS AND WEAKNESSES

Although executives agreed that management was both a strength and a weakness, this evaluation was made for differing reasons :

Strengths :	Observer 1 -	flexibility
	Observer 4 -	enthusiasm and product orientation
Weaknesses :	Observer 2 -	poor middle management and lack of acquisition experience.
	Observer 4 -	unprofessional mid and top strata, in particular combined with lack of financial awareness.

SECTION 3 : CONCENTRATION

3.1

All except Observer 4 perceived formal criteria to have been used in making the decision to acquire Ashwell and Nesbit - the areas in which they were specified were described by executives and are shown in Table 5.

	Observer 1	Observer 2	Observer 3	Observer 4	Consensus (= $\frac{3}{4}$)
Financial :					
Cost		√2=	√3=		
Marketing :					
New potential markets	√1=				
Growth rate of market			√3=		
Effect on market share			√1		
Production :					
Control of raw materials through foundry	√1=	√1	√2		√
Size of site	√1=	√2=			
Corporate :					
Management	√1=				
Effect on corporate Image		√2=			
Influence of ICFC			√1=		

TABLE 5 : PRE-ACQUISITION CRITERIA

Despite the lack of agreement the answers of executives are internally consistent - Observer 1 explained that the possibility of entry into American markets combined with the additional facilities to meet such an increase in demand reflected the Chairmans wish to grow at a rapid rate. The preoccupation with vertical integration which is shown in the consensus criterion was underlined by Observer 4 who perceived that ICFC used the lack of total integration as a major influencing factor in their discussions.

Observer 4 did not consider that this was a sufficient criterion to adopt in such cases and would have carried out a detailed project analysis covering the areas shown in Table 6.

	Observer 1	Observer 2	Observer 3	Observer 4	Consensus (= $\frac{3}{4}$)
Financial :					
Cost		√3	√3=		
Effect on Capital Structure		√1			
Effect on Profit-ability				√1	
Marketing :					
Products				√2=	
New potential markets	√1=			√2=	
Existing customers				√2=	
Growth rate of market			√3=	√2=	
Effect on market share			√1	√2=	
Production :					
Control of raw material through foundry	√1=	√2	√2		√
Size of site	√1=				
Corporate :					
Management	√1=				

TABLE 6 : IDEAL PRE-ACQUISITION CRITERIA

With the benefit of hindsight, Observers 2 and 4 would have made changes in the criteria applied to the acquisition, but despite this, the sole consensus item of the increased control over raw material remains.

SECTION 4 : THE BID

4.1

Despite the varying acquisition signals described in Section 1, all executives agreed that ICFC had been responsible for bringing the two companies together and for monitoring negotiations.

4.2

There was some confusion in answers when executives were asked to explain the form of the bid and the reason for choosing the method described. Table 7 shows the various responses.

	BID	REASON
Observer 1	Don't know	—
Observer 2	Ordinary shares & Preference shares	Marwin did not have any cash.
Observer 3	Preference shares and cash	No equity involved
Observer 4	Preference shares	Influence of ICFC

TABLE 7

4.3

Apart from Observer 1, who was unfamiliar with the financial aspects of the deal, all observers agreed that a premium had not been paid for the company, nor was it necessary for Marwin to raise its own initial maximum price.

SECTION 5 : POST-ACQUISITION

5.1

All executives agreed in broad terms on the action which took place after the acquisition, although descriptions varied in detail.

Corporate : Initially, both sites were continued with Marwin management being divided to run both companies, as the management of Ashwell and Nesbit was considered to be very poor. However, no redundancy action was taken in any area and Observer 1, who is responsible for Industrial Relations, felt that Marwin ended up paying for titles rather than skills - a planned redundancy scheme would have been more efficient in the long term.

Organisation : The new company was divided into two main divisions - Marwin Machine Tool

The Foundry

Thus, the two companies were totally merged and the identitv of Ashorne - Nesbit completely lost.

Products : Ashwell and Nesbit had been "left behind in the technology race" (Observer 1) and consequently many of the products were phased out. The rest became part of the Marwin range, except for the small rotary pumps which were moved to another part of the group.

Selling : All explained that the Machine Tool Market required a selling approach rather than a marketing one and that not even this activity had taken place to any notable extent within Ashwell and Nesbit for many years.

Production : Production methods and facilities were 'obsolete' (Observer 1), 'Dickensian' (Observer 2), 'archaic' (Observer 4) and a substantial amount of rationalisation and re-organisation was needed.

Control Systems : The monitoring systems used by Marwin were introduced into the combined company.

5.2

All the action described above had been anticipated prior to acquisition, the one exception being the decision to move all activities to the Ashwell and Nesbit site. With the drop in the Machine Tool market, it became increasingly obvious that the group was carrying excess capacity at a very high management cost ; "the chaos of two sites was to be seen to be believed" (Observer 2). Observer 1 did not subscribe to this majority view, explaining that the move to the new site had been planned prior to acquisition.

5.3

All except Observer 1 agreed that it had taken Marwin substantially longer than originally anticipated to satisfactorily complete all action planned.

5.4

Opinions on the success of the venture were mixed, although three out of the four executives felt that the decision to buy had been a mistake, particularly in the light of later developments in the Machine Tool Industry.

Observer 1: "It was successful because :

(a) the employees quickly transferred their allegiance to Marwin

(b) the Marwin products were soon in production."

Observer 2 : "The acquisition has been successful, although the resultant strain on the capital has meant that the Company has been limited in its search for other, more profitable opportunities."

Observer 3 : "We have been successful in making it efficient."

Observer 4 : "It has not been successful - we have lost money in the Machine Tool Company."

BACKGROUND

Quinton Hazell was incorporated in 1948 and became publically quoted in 1960. The company are manufacturers and distributors of motor vehicle components and the report concerns the acquisition of the Kerry Group, wholesale distributors to the motor, radio, electrical and cycle trades, in 1968, and Standard Tyre, retailers of car tyres and silencers.

Observers Interviewed :

OBSERVER	POSITION	NO. OF YEARS	
		In Job	In Company
1	Joint Managing Director	5	8
2	Chairman, Partco Limited	1	10
3	Chairman, Retail Division	1	10

QUINTON - HAZELL : FINANCIAL ANALYSIS

(£'000)	1967	1968	1969	1970	1971
Turnover	NQ	6,649	16,440	17,736	21,190
Net Worth	3,116	3,256	6,692	7,871	8,660
Net Assets	3,934	4,075	8,115	8,485	9,281
PBIT	541	631	1,060	1,438	1,914
PAT	296	310	506	663	944
No. Shares	15,000,000	22,600,000	23,098,090	29645610	37028510
No. Employees	NQ	1,666	3,295	3,666	3,588
Gross Margin	NQ	9.5	6.5	8.1	9.0
Net Margin	NQ	4.7	3.1	3.7	4.4
Return on Net Worth	9.5	9.5	7.5	8.4	10.8
Return on Net Assets	13.8	15.5	13.0	17.0	20.6
Asset Turnover	NQ	1.63	2.01	2.10	2.28
Current Ratio	1.65	1.39	1.77	1.44	1.44
Acid Test	0.64	0.61	0.84	0.69	0.71
Debtors (days)	NQ	93	82	103	97
Gearing	20.2	19.2	13.0	3.5	2.9
Coverage	5.00	5.0	5.10	6.45	6.55
Dividend Cover	1.64	1.18	1.62	1.41	1.87
Turnover/Employee	NQ	4,000	5,000	4,850	5,900
Earnings/Share (p)	2.3	2.2	2.0	2.2	2.5
Net Assets/Share (p)	18.4	17.2	27.0	25.1	21.8

QUINTON HAZELL - MARKET DATA

BOT 38/1

	1967		1968		1969		1970		1971	
	Size	Roce	Size	Roce	Size	Roce	Size	Roce	Size	Roce
Birmingham Small Arms	35.48	11.6	36.54	13.5	33.85	3.8	38.29	3.7	40.27	Loss
Automotive products	39.49	13.9	45.30	20.4	50.43	18.8	55.19	17.1	57.59	17.6
Wilmot Breedon	27.85	11.8	30.35	13.5	32.82	12.4	38.31	11.0	44.40	16.5
Blackwood Hodge	37.04	13.7	44.45	13.7	57.18	14.5	73.27	15.1	76.8	14.8
Adwest	—	14.4	9.06	14.5	9.41	17.6	13.28	15.1	14.96	17.7
Zenith Carburettor	—	8.8	4.50	6.9	4.86	3.4	5.88	10.1	7.21	9.5
Kirkstall Forge Engineering	—	8.4	6.08	13.7	6.82	13.0	9.72	16.2	11.32	15.0
Edbro Holdings	4.38	27.3	5.35	28.3	5.97	28.3	6.85	30.1	7.66	29.3
Lancaster Carpets & Engineering	7.96	NA	8.42	NA	8.84	NA	10.92	NA	12.97	NA
Harmo Industries	—	32.8	3.36	31.5	4.32	33.3	5.63	29.7	5.98	27.3
ERF Holdings	5.21	NA	6.10	23.3	7.83	21.0	9.76	33.5	12.60	34.6
Britax (Excelsior)	—	22.1	5.18	35.4	4.56	18.1	4.01	10.1	NA	NA
Moss Gear Co.	2.05	15.5	2.38	14.9	4.60	15.2	5.26	14.1	6.01	15.3
Plaxtons	—	30.2	3.27	25.3	4.23	30.4	5.05	30.4	6.45	34.5
Weyburn Engineering	1.08	8.8	1.33	15.3	1.58	16.9	1.74	20.1	1.79	17.1
Speedwell Gear Case Company	0.87	11.3	0.78	5.7	0.91	4.2	1.01	7.2	1.25	14.5

NA = data not available

QUINTON HAZELL : MARKET ANALYSIS

SIZE (£'000)

YEAR	SAMPLE NO.	MEDIAN	MEAN	S. D.	QUINTON HAZELL	SCORE
1967	10	6.17	16.1	16.2	NQ	–
1968	16	4.92	13.3	18.9	6.65	- 0.35
1969	16	6.39	14.9	17.1	16.44	+ 0.09
1970	16	8.30	17.6	20.4	17.74	+ 0.01
1971	15	11.32	19.8	22.2	21.19	+ 0.06

ROCE (%)

YEAR	SAMPLE NO.	MEDIAN	MEAN	S. D.	QUINTON HAZELL	SCORE
1967	14	13.8	16.5	8.1	13.8	- 0.34
1968	15	14.9	18.4	6.8	15.5	- 0.42
1969	15	16.9	17.2	6.3	13.0	- 0.67
1970	15	15.1	17.5	9.6	17.0	- 0.05
1971	14	16.8	18.8	9.6	20.6	+ 0.39

SECTION 1 : TRIGGER

1.1

There was some disagreement amongst the executives interviewed on the question of the nature of the planning system used by the company over the previous five years. Table 1 shows the responses of individual observers.

	Observer 1	Observer 2	Observer 3	Consensus ($= \frac{2}{3}$)
Objectives	No System	Formal Regular	Informal Regular	X Regular
Constraints	Informal Irregular	No System	Formal Regular	X X
Strengths and Weaknesses	Informal Irregular	Formal Regular	No System *	X X
Product/Market Strategy	Formal Regular	Formal Regular	Formal Regular	Formal Regular
Monitor and control system	Formal Regular	Formal Regular	Formal Regular	Formal Regular

TABLE 1 : PLANNING SYSTEM

* except on a profitability basis

1.2

Observer 3 explained that the prime objective of the company over the last ten years has been to become completely vertically integrated whilst obtaining an increasing share of the ultimate wholesale and retail markets for automotive parts. In 1967, this could only be achieved by a rapid increase in the number of wholesale outlets owned and in 1972 by an increase in the number of retail outlets. Thus the need for acquisition.

1.3

Observers 1 and 2 also explained that the company needed to increase the number of outlets rapidly but gave different explanations of the factors leading up to that stage. Observer 2 recognised a changing distribution pattern within the market,the outlets becoming more specialised. Whilst Observer 1 explained that in 1967, AP and AE had taken positive steps to limit the sale of Quinton Hazell products through wholesalers, and in 1972 through "do-it-yourself" shops, which were increasing in number rapidly. Table 2 shows the acquisition signals perceived by each observer.

	KERRY				STANDARD			
	1	2	3	Consensus	1	2	3	Consensus
Financial :								
Liquidity					1=			
Growth rate			1				1	
Marketing :								
New profitable markets					2=			
Incomplete product range	1							
Distribution outlets	3	1	2	√	1=	1	2	√
Production :								
Raw material availability	2							
Corporate :								
Attitude of * Standard executive					3			

TABLE 2 : ACQUISITION SIGNALS

* they had shown an increasing willingness to discuss the matter.

1.4

With the benefit of hindsight, all executives were of the opinion that all the relevant signals, as described, had been correctly recognised at the time.

SECTION 2 : ELIMINATION

2.1

The nature of the acquisition triggers described in the previous section were such that attention was automatically focussed on specific categories of companies - wholesale (1967) and retail (1972) outlets with motor trade connections. Observer 3 added that, in 1972, the search was limited even further to tyre distributors.

2.2

Table 3 shows the extent to which observers perceived an internal company audit to have taken place prior to each acquisition.

	Observer 1	Observer 2	Observer 3	Consensus ($=\frac{2}{3}$)
1 Consider Concept of Business ?	YES	YES	YES	YES
2 Assess Corporate Objectives ?	NO	YES	YES	YES
3 Evaluate strengths and weaknesses.	YES	YES	NO	YES
4 Seek synergy.	YES	YES	NO[k] YES[s]	YES

TABLE 3 : INTERNAL COMPANY AUDIT

Note : K = Kerry acquisition

S = Standard tyre acquisition

Observer 3 was of the opinion that a formal analysis of the strengths and weaknesses of Quinton Hazell would have been useful to executives in determining the company to be acquired.

2.3

Concept of the Business :

All executives agreed that the company had been correctly classified in the business of supplying car components, Observer 3 qualifying this by limiting the definition to the spares replacement market.

2.4

Corporate Objectives :

Consistent with his perception of the planning system in operation, Observer 1 was unaware of any specific analysis or definition of prime corporate objectives prior to either acquisition, but was of the opinion that this was a serious omission. Table 4 shows the areas in which other executives perceived objectives to have been specified at the times discussed.

	Kerry Acquisition			Standard Tyre Acquisition		
	2	3	Consensus	2	3	Consensus
Financial :						
Profitability	2	2	√	2	2	√
Marketing :						
National Wholesale Network	1					
Expand into Europe by Acquisition				1		
Corporate :						
Company Image		1			1	

TABLE 4 : COMPANY OBJECTIVES

Observer 3 explained that the company aimed to become the "biggest replacement parts company in the world". It must be noted that the prime objective perceived by Observer 2 could be interpreted as an interim step towards the achievement of such a goal.

When asked to comment upon their perception of corporate objectives, Observer 3 would include a third area, that of 'Industrial Relations'. Table 5 shows the areas in which Observers felt objectives should have been specified at the time of each acquisition.

	Kerry Acquisition				Standard Tyre Acquisition			
	1	2	3	Consensus	1	2	3	Consensus
Financial :								
Return on Capital		2	2	√ 2		2	2	√
Earnings per share	2				2			
Marketing :								
National Wholesale Network	1	1		√ 1				
National Retail Network					1			
Expand into Europe by Acquisition						1		
Corporate :								
Industrial Relations							3	
Company Image			1				1	

TABLE 5 : IDEAL CORPORATE ACQUISITION

2.5

Corporate Strengths and Weaknesses :

Table 6 shows the corporate strengths and weaknesses which Observers 1 and 2 perceived to have been identified at the time of both acquisitions.

	STRENGTHS			WEAKNESSES			
	1	2	Consensus	1	2		Consensus
					K	S	
Financial :							
Lack of gearing				3			
Marketing :							
Market Share				1			
No. Wholesale outlets (Kerry)					1		
No. Retail outlets (Standard)						1	
Corporate :							
Management	1	1	√				
Production/Sales mis-match				2			

TABLE 6 : CORPORATE STRENGTHS AND WEAKNESSES

Both executives agreed that the management team of Quinton Hazell was very strong, "able to cope with everything it was doing" (Observer 1) and constantly "needing further outlets" (Observer 2). Observer 1 explained that a weakness of the growth strategy chosen was that the organisation was constantly in the position where production was unable to meet demand or vice versa. With the benefit of hindsight, Observer 3 was not as enthusiastic about the management skills within the group, particularly in the production units of the group.

	KERRY ACQUISITION								STANDARD ACQUISITION							
	Strengths				Weaknesses				Strengths				Weaknesses			
	1	2	3	C*	1	2	3	C*	1	2	3	C*	1	2	3	C*
Financial:																
Lack of gearing					3								3			
Marketing :																NO CONSENSUS
Spares market			1								1					
Market share					1								1			
No. Wholesale outlets						1	1	√								
No. Retail outlets														1		
Type of outlets															1	
Corporate :																
Management	1	1	2	√			2		1	1	2	√			2	
Production/ sales mis-match					2								2			

TABLE 7 : IDEAL STRENGTHS AND WEAKNESSES

* consensus

During 1971/72, the do-it-yourself market grew at such a rate that 30% of the work on any car was done by the owner. Thus one of the major weaknesses of the company was the lack of retail outlets which opened on Sunday and sold Quinton Hazell branded goods (Observer 3.)

SECTION 3 : ACQUISITION CRITERIA

3, 1

Table 8 shows the factors which executives perceived to have been considered prior to the decision to acquire a specific company. Observer 2 was not involved in the final decision to acquire Standard Tyre and was unable to contribute to this section of the questionnaire.

	Kerry Acquisition				Standard Acquisition		
	1	2	3	Consensus*	1	3	Consensus
Financial :							
Potential profitability		3				4	
Effect on P/E	4				4		
Size	2	1=		√ 3	2		
Cost			2=				
Marketing :							
Type of products						1=	
Type of markets						1=	
No. outlets	1=	1=	1	√ 1	1=	2=	√ 1=
Location of outlets	1=	1=	2=	√ 2	1=	2=	√ 1=
Corporate :							
Management		2	3	√ 4		3	
Effect on backlash from trade	3				3		

TABLE 8 : ACQUISITION CRITERIA

* Kendal's Coefficient of Concordance = 0.73, S = 33, X^2 = 6.6
10% S. L. = 6.23

3.2

In each case, Observer's answers were internally consistent. Observer 1 explained that the reaction from the trade in terms of further limiting raw material supplies (see Section 1.3) and the possibility of their refusing to supply Quinton Hazell goods through their outlets must be considered very carefully. As described in Section 2.1, Observer 1 perceived that the search be limited to tyre distributors, preferably those also offering a free silencer service - a new development at that time.

SECTION 4 : THE BID

4. 1

For each acquisition a direct approach was made to the Board of the proposed "victim". In the case of Kerrys, this was entirely a matter of form (Observer 2) - "they were anybody's" (observer 3), whilst the Standard Tyre Acquisition was agreed with the executives with the company, some shares having previously been bought on the open market, as it was necessary to retain the existing management and cause as little distruption as possible.

4. 2

Both transactions took the form of a share issue with a cash option - it was the cheapest method (Observers 2 and 3).

4. 3

When asked to comment upon the relative cost of the acquisitions, there was a lack of consensus in the replies concerning the acquisition of Standard Tyres - see Table 9.

	Kerry Acquisition				Standard Acquisition		
	1	2	3	Consensus	1	3	Consensus
Did you pay a premium over pre-bid price ?	No	No	Yes	No	Yes	Yes	Yes
Did you pay a premium over net asset value ?	No	No	No	No	Yes	No	X
Was it necessary to raise your maximum price ?	No	No	No	No	No	Yes	X

TABLE 9 : RELATIVE COST OF ACQUISITION

SECTION 5 : POST-ACQUISITION

5.1

All executives described essentially the same action, answers only varying in detail.

5.2

The Kerry Acquisition

Organisation Structure :	it was considered ridiculous to maintain two management teams and therefore Kerry's was totally integrated into the PARTCO division of the Group.
Corporate :	both Observers 1 and 3 explained that all the top management of Kerrys had left as a result of an early pension, a golden handshake or resignation. This is in contrast to the perception of Observer 2.
Asset Structure :	Kerrys had tried to diversify by developing interests in the Machine Tool Industry. However, Quinton Hazell felt that this was outside their 'concept of the business' and sold it, along with some minor electrical and marine interests - Observers 1 and 3.
Marketing :	Observer 1 explained that no action had been necessary in this area, this being in complete contrast to the answers of the other two executives who perceived that the approach to marketing had been completely changed.

Products : A rationalisation of the product range took place which brought in more components and cut out such accessories as lawn mowers.

Control Systems : Kerrys had installed and were attempting to use sophisticated computer hardware for all the data processing. The systems installed were so complicated that the resultant output was too late for use. Eventually, it was almost completely unwound, leaving only the sales ledger which was transferred to the Quinton Hazell machine at Colwyn Bay and the computer was returned to IBM.

5. 3

All the action described by executives had been anticipated in outline prior to the acquisition, except for the sale of the Machine Tool interests as described by Observer 3.

5. 4

The Standard Tyre Acquisition

Organisation Structure : As a result of this acquisition, all the retail interests of the Group were brought together to form a division.

Corporate : As originally intended (see Section 4. 1) all executives were retianed, except for some 'non-executive relatives' (Observer 3). Subsequently, as a result of disagreements over the bid made by Burmah Oil for Quinton Hazell, the original Chairman of Standard Tyre (Mr Blake), resigned.

Asset Structure :	The earth moving company (MCC) was re-sold to Mr Blake.
Marketing :	Observer 3 explained that the company had 'gone overboard for the add-on trade', and as a result, tyre sales were falling - this was corrected.
Products :	The major products sold were tyres and silencers and it was proposed to add motorists shops to the sites, thus capturing more of the do-it-yourself trade.
Control Systems :	The systems were standardised.

5.5

Apart from the resignation of Mr Blake and the resultant sale of MCC, all action taken was planned in outline prior to the acquisition.

5.6

In direct contrast to the perception of Observer 2, the other executives explained that in the case of the Kerry acquisition, the re-organisation had taken longer than was originally anticipated, Observer 3 commenting that the Quinton Hazell management had been too slow to 'grasp the nettle'. Whilst it was too soon to finally evaluate the action taken after the acquisition of the Standard Tyre, both executives felt that the company would be absorbed into the Group within the anticipated time.

5.7

The executives were unanimous in their view that both acquisitions had been successful, but varied in their reasons, thus -

Kerry Acquisition -

Observer 1 : established the Quinton Hazell manufactured product on a national basis

Observers 2 and 3 : the company was now profitable and it would have gone into liquidation had it not been acquired.

Standard Tyre Acquisition -

Observer 1 : too early to make a final judgement but the criteria would be :

(a) depot profitability

(b) increased volume of Quinton Hazell parts.

Observer 3 : increased profitability.

BACKGROUND

Richard Johnson and Nephew Limited, founded in 1773, are manufacturers of wire and wire products including - steel wire rods, all classes of steel wire, barb, strand, woven wire fence, chain link fencing, ironwork, welded wire mesh, copper rods wire strip and strand, aluminium wire and composite conductors ; and packaging equipment. By the 26th of June 1971, Jessel Securities had acquired approximately 52% of the equity capital.

The acquisition discussed is that of John Rigby and Sons limited also manufacturers of wire and including a special section and sintered components division.

OBSERVERS INTERVIEWED

Observers	Position Held
1	Financial Director
2	Chairman : Non-Ferrous
3	Group Chairman
4	Chairman - Steel

RICHARD JOHNSON & NEPHEW - FINANCIAL PERFORMANCE

('000)	1966	1967	1968	1969	1970	1971*
Turnover	39,525	39,950	36,233	40,143	51,321	67,994
Net Worth	11,734	12,163	12,397	12,543	15,434	16,252
Net Assets	12,984	13,713	13,947	14,093	17,541	22,247
PBIT	2,444	2,241	1,436	937	1,634	3,117
PAT	1,654	1,291	793	527	747	1,723
No. Employees	NA	NA	3,157	3,160	3,184	3,295
No. Shares	3,600	3,600	3,600	3,600	3,600	3,600
Gross Margin	6.2	5.6	4.0	2.3	3.2	4.6
Net Margin	4.2	3.2	2.2	1.3	1.5	2.5
Return on net assets	18.8	16.3	10.3	6.6	9.4	11.2
Return on net worth	14.1	10.6	6.4	4.2	4.8	8.5
Asset Turnover	3.0	2.9	2.6	2.8	2.9	2.4
Dividend Cover	2.9	2.3	1.4	1.4	1.3	2.1
Current Ratio	2.8	3.2	2.7	2.2	2.2	2.8
Acid Test	1.6	1.9	1.5	1.3	1.3	1.9
Debtors (days)	69	63	73	75	68	78
Gearing (%)	9.6	9.1	9.0	8.9	7.0	22
Average cost of Capital (%)	4.9	5.4	4.7	3.9	4.5	5.0
Turnover/employee (£)	NA	NA	11,500	12,700	16,000	16,400
Earnings per share (£)	0.46	0.36	0.22	0.15	0.21	0.48
Net Assets per Share (£)	3.6	3.8	3.9	3.9	4.85	6.2

* Accounting year changed - includes 15 months accounts

RICHARD JOHNSON & NEPHEW - MARKET PERFORMANCE

(SIC 391 - 9 , BOT 39/1)

	1967		1968		1969		1970		1971	
	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI
Pegler Hattersley	12.24	31.2	13.59	40.1	22.87	30.9	30.72	24.6	33.92	20.2
Metal Closures	13.33	13.3	15.86	19.0	17.86	20.9	18.99	19.6	20.62	21.9
Prestige	12.89	24.3	13.84	25.1	14.36	25.3	18.04	25.0	21.95	26.3
Folkes (John) Hefo	7.70	15.4	17.50	17.7	20.00	15.1	21.00	16.2	A	A
Francis Industries	9.25	11.8	10.26	11.8	10.65	7.4	11.39	Loss	12.43	8.0
Doncaster (Daniel)	13.83	29.6	14.06	25.6	12.90	14.1	12.60	10.1	16.44	Loss
Barton	11.82	11.7	12.31	9.2	14.25	15.9	17.51	19.0	16.86	19.3
Newey & Taylor	6.87	9.1	8.17	14.0	8.43	12.6	9.03	9.3	9.68	18.7
Spear & Jackson	3.32	11.2	3.82	15.0	6.49	11.0	10.42	13.0	11.13	13.2
Midland Aluminium	8.83	Loss	9.79	6.5	11.88	6.9	12.89	11.0	14.50	13.8
Heywood Williams	5.77	Loss	6.72	Loss	8.90	0.8	8.83	0.1	8.62	8.4
United Wire	6.21	23.5	7.01	29.6	7.67	27.1	8.80	25.3	7.99	15.9
Sanderson Kayser	4.57	14.7	4.94	14.6	5.52	16.9	6.32	17.9	NI	NI
Concentric	7.02	20.3	8.69	25.6	9.71	24.3	11.33	24.9	11.93	23.1
Shaw (John) Wolverhampton	2.82	19.8	2.91	19.1	3.09	17.0	3.58	20.0	A	A
Deritend Stamping	6.41	12.4	6.51	9.3	7.36	14.2	8.63	16.3	10.85	26.5
Bifurcated Engineering	2.51	14.0	3.28	16.9	3.94	18.6	4.43	14.4	NI	NI
Bruntons (Musselburgh)	3.26	28.6	3.33	27.0	4.08	32.9	4.47	33.9	4.50	33.5
Gaskell & Chambers	5.20	9.5	5.04	7.9	4.70	12.6	4.85	3.2	4.52	25.0
Darnall	—	29.0	2.48	25.8	2.62	18.3	3.07	19.0	3.83	18.6
Dimplex	—	16.3	4.58	14.0	5.57	23.6	7.06	25.4	8.40	31.3

Size quoted in £'000,000

A = Acquired

NI = Not issued at time of data collection

RICHARD - JOHNSON & NEPHEW - MARKET COMPARISON

Size (£'000,000)

	Sample No.	Median	Mean	S. D.	Richard Johnson	Score
1967	19	6.87	7.8	3.18	39.95	10.1
1968	21	7.01	8.4	4.50	36.23	6.2
1969	21	8.43	9.6	5.80	40.14	5.25
1970	21	9.03	11.1	7.07	51.32	5.7
1971	17	11.13	13.1	7.02	54.4*	5.9

* estimated - accounts state turnover for 15 months

Return on Capital (%)

	Sample No.	Median	Mean	S. D.	Richard Johnson	Score
1967	21	14.7	16.4	9.02	16.3	- 0.01
1968	21	16.9	17.7	9.48	10.3	- 0.78
1969	21	16.9	17.4	8.10	6.6	- 1.34
1970	21	17.9	16.6	8.81	9.4	- 0.82
1971	17	19.3	19.0	8.75	11.2	- 0.89

NB Where a loss is incurred a zero return on capital is assumed.

SECTION 1 - TRIGGER

1.1

Consensus existed amongst observers when describing the type of planning system in operation prior to the acquisition discussed ; consensus being defined where at least three of the four observers agreed. The only dissenting voice was that of observer 2, who disagreed on all aspects with the exception of the type of control system in operation.

The responses of the four directors are seen in Table 1 below :

Area	Type of System	
	Formality	Regularity
Objectives	Formal	Regular
Constraints	Formal	Regular
Strengths & weaknesses	Informal	No Consensus
Product/Market Strategy	No Consensus	Regular
Control Systems	Formal	Regular

TABLE 1 - TYPE OF PLANNING SYSTEM

However, disagreement was evident as to the reason for the company originally considering acquisition at all. Observer 1 considered that the sole signal emanated from Jessel Securities the new majority shareholder. This conflicted directly with the views of the other three directors who all viewed the trigger as being a direct result of the relatively new planning system illustrated in Table 1. This level of consensus deteriorated when observers described the nature of the trigger itself, a conflict demonstrated in Table 2.

	Observer 2	Observer 3	Observer 4	Consensus $= \frac{3}{4}$
<u>Financial</u>				
Liquidity				
Profitability				
Gearing			✓	
P/E or EPS				
<u>Marketing</u>				
No. of products	✓	✓	✓	✓
No. of markets	✓	✓		
No. of customers				
Market size	✓			
Market share				
Channels/outlets				
<u>Production</u>				
Raw materials				
Labour				
Processes	✓			
Distribution				
<u>Corporate</u>				
Management				
Image				
Legal				

TABLE 2 - SIGNAL FACTORS

N.B. See the previous page for Observer 1's comments

1.3

The one point on which all three directors agreed was the reliance of the company upon a limited number of products in a cyclical market - this being ranked as the most important factor by observer 3. The prime trigger as viewed by observer 2 was the need for further capacity and the age of existing plant, and by observer 4, as "gearing potential". (sic)

1.4

When observers were free to recommend those factors which should be monitored as a signal for potential acquisition, it was interesting that three of the four directors added the significance of the price-earnings ratio.

	Observer 1	Observer 2	Observer 3	Observer 4	Consensus
Financial					
Liquidity				2=	
Profitability			2=	2=	
Gearing					
P/E or EPS	1		2=	2=	✓
Marketing					
No. of products		2=	1=	1	✓
No. of markets		3	1=		
No. of customers					
Market size		2=			
Market share					
Channels/outlets					
Production					
Raw materials					
Labour					
Processes		1			
Distribution					
Corporate					
Management				2	
Image					
Legal					

TABLE 3 - RANKING OF IDEAL SIGNAL FACTORS

1.5

The need to monitor the abilities and potential of existing management as described by observer 4 is echoed by other observers later in the analysis.

SECTION 2 - ELIMINATION

2.1

Observers 2, 3 and 4 agreed that the signal which they had described previously, indicated the type of company to be considered - that is one which would be technically and marketing related. (Horizontal diversification). All agreed with the benefit of hindsight, that this was correct.

2.2

Consensus was maintained as to the type of company audit adopted prior to, and during, the choice of companies short-listed. Table 5 illustrates this.

	Observer 1	Observer 2	Observer 3	Obs. 4	Consensus
1 Consider the concept of the business ?	YES	YES	YES	NO	YES
2 Assess Company objectives ?	YES	YES	YES	YES	YES
3 Evaluate strengths and weaknesses ?	YES	YES	NO	YES	YES
4 Seek synergy ?	NO	NO	NO	YES	NO

TABLE 5 - COMPANY AUDIT

2.3 Concept of the Business

Observers 2, 3 and 4 all perceived the concept of the business at the time of the acquisition search to be that of "metal manipulators", a description with which they concurred with the benefit of hind-sight.

This is a broader definition than that given by observer 1, viz., "producers of wire and wire products", being taken from a marketing viewpoint, rather than that of production. This highlights the transition from a production to a marketing company orientation which other observers later described as taking place at that time.

2.4 Objectives

Table 6 shows the types of prime/company objectives which observers perceived to exist prior to the choice of a specific company (actual), and those which they feel should have applied both then, and at the time of interview (ideal).

Objectives	1		2		3		4		Consensus	
	Actual	Ideal	A	I	A	I	A	I	Actual	Ideal
Profitability	1	1	1	1	2	1		2=	√	√
Gearing								2=		
Market Penetration	2	2								
Product Development					1	2	1	1		
Diversification						3				

TABLE 6 - COMPANY OBJECTIVES

It is worth noting that the two observers who perceived Product Development to have been the prime objective, are also the two who, with hindsight, would change the situation. The highlighting of Product Development is consistent with the view expressed earlier, that reliance on few products within a limited number of markets was a signal for the need to consider acquisition.

2.5

Strengths and Weaknesses

Table 8 shows the areas of strengths and weakness perceived by observers to have been determined by the company prior to the acquisition discussed.

	STRENGTHS					WEAKNESSES				
	1	2	3	4	consensus	1	2	3	4	consensus
Financial										
Liquidity						4=				
Profitability						3				
Gearing						4=				
P/E						2				
Marketing										
Products								2		
Markets								1		
Customers	3			2			2=			
Market size							2=			
Production										
Raw materials							1			
Processes	2	1	1		√		2=			
Corporate										
Management	1	2		1	√	1		3	1	√
Image	4									

TABLE 8 - STRENGTHS AND WEAKNESSES

Although substantial disagreement exists when asked if this was a correct evaluation with the benefit of hindsight, only two changes were suggested

(1) Observer 4 considered that a major strength not recognised at the time was the support of Jessels, particularly with reference to finance.

(2) Observer 2 would change the rankings of the two strengths specified.

A number of points require further explanation :

(a) The financial weaknesses as described by observer 1 were a function of the cyclical nature of the business, and thus of profitability.

(b) Observer 2 described the weakness as being a company within a small static market in the non-ferrous field with customers being particularly vulnerable to take-over by competitors.

(c) Observer 2 considered the monopolistic supply of steel by the British Steel Corporation to be a raw material weakness.

(d) A major strength was the knowledge of metal forming processes. A major weakness was the fact that newer plant, using cheaper material, was being introduced by competitors.

(e) The understanding of markets and customers and management marketing ability was "not as great as evaluated, but the fact that its importance was realised, was a strength."

(f) The existing management was seen as both a strength and a weakness by observers. This dichotomy is shown in Table 9.

	STRENGTH	WEAKNESS
Observer 1	Brains & ability	Management structure
Observer 2	Youth & Potential	—
Observer 3	—	Production oriented
Observer 4	Potential	Production oriented
		No experience in dealing with acquisition

TABLE 9 - STRENGTHS AND WEAKNESSES OF MANAGEMENT

SECTION 3 - CONCENTRATION

3.1

All except observer 3 were of the opinion that formal criteria for choice were set up prior to the decision to acquire Rigby, although disagreement existed as to their form. Table 10 illustrates :

Criteria	Observer 1	Observer 2	Observer 4	Consensus * $= \frac{2}{3}$
Profitability			2	
Effect on P/E	1	1	1	√
Type of products	2	3		√
Type of markets	5			
Customers	6			
Channels	7			
Raw materials	3			
Processes	4	2		√
Management	8			

TABLE 10 - RANKING OF ACQUISITION CRITERIA

* Insufficient agreement existed to establish an order of ranking.

3.2

The large number of criteria specified by observer 1 is consistent with his view that the planning system he described previously, did not signal a need for acquisition and did not highlight possible areas for acquisition search. However, they are inconsistent with the view that the company did not seek any form of synergy.

3.3

When asked if the criteria specified were correct with the benefit of hindsight, observers 2 and 4 were satisfied. Observer 3 would have created a formal list of criteria, and observer 1 would add one category of size whilst significantly altering the rankings (Spearman's Rho = 0.15, 5% SL = 0.6). Table 11 shows the extent of disagreement amongst executives as to the correct criteria. It is worth noting however, that all observers classify the consensus item (effect on P/E ratio) as the most important.

Criteria	Observer 1	Obs. 2	Obs. 3	Obs. 4	Consensus $= \frac{3}{4}$
Profitability			2	2	
Effect on P/E	1	1	1	1	√
Size	2		4		
Type of products	3	3			
Type of markets	5				
Customers	8				
Channels	9				
Raw materials	6				
Processes	7	2			
Management	4		3		

TABLE 11 - "IDEAL" ACQUISITION CRITERIA

SECTION 4 - THE BID

4.1

All observers agreed that the bid took the form of a direct approach to the chairman of Rigby's, being determined by the personal ties which had existed between the two companies for many years, and the fact that it was a family business.

4.2

The company was acquired by issuing convertible loan stock with a cash option. This was chosen in view of its comparative low cost, and the fact that earnings per share would be boosted in the short term. This is consistent with the pre-acquisition criterion of the "effect on P/E ratio".

4.3

Although consensus existed as to the relative cost, complete agreement did not, as Table 12 shows.

	Observer 1	Obs. 2	Obs. 3	Obs. 4	Consensus
Premium over pre-bid price ?	YES	YES	can't remember	YES	YES
Premium over net-asset value ?	NO	can't remember	YES	YES	×
Necessary to raise maximum price ?	NO	YES	NO	NO	NO

TABLE 12 - RELATIVE COST OF BID

The confusion over the second question as to a premium over net-asset value is accentutated by the fact that observer 1 was the Financial Director , responsible for the detailed financial negotiations.

SECTION 5 - POST-MERGER ACTION

5.1

Varying levels of agreement prevailed with regard to the extent of planned action pre-merger, and the extent to which it was or was not carried out. The action is specified below.

(a) Asset structure ; Two executives explained that some of the assets were stripped, the remaining two stating that no action had, as at the time of the interview, been taken. One of the latter did, however, view this as necessary in the future.

(b) Marketing : All observers described an analysis of company sales and an incorporation of the sales organisation into that of the parent company.

(c) Products : Two executives stated that the product line was pruned, but disagreed whether this had been planned before the acquisition took place. The remaining two executives perceived no action to have been taken in this area, but also disagreed as to whether the inaction was pre-planned. Table 13 illustrates :

	Pruned Product Line	No Action
Pre-planned	Observer 1	Observer 3
Not pre-planned	Observer 4	Observer 2

TABLE 13 - OBSERVER'S PERCEPTION WITH REGARD TO ACTION ON PRODUCT LINE

(d) Production : Almost complete agreement existed that no action took place - only executive 1 was in disagreement.

(e) Organisation : All agreed that the action taken in this area was twofold -

(1) The existing Board was sacked and the management re-deployed.

(2) Rigby's, which was orignally 11 different companies became one division of Johnson, with the exception of the special sections and sintered divisions, which continued to operate as John Rigby & Sons Ltd.

The Production Manager was replaced.

(f) Control systems : Accounting and control systems were installed, none being in operation previously.

5.2

The extent of agreement with regard to both action and planning is summarised in Table 14.

Action Area	Action Consensus	Planned ?
Assets	NO	No Consensus
Marketing	YES	YES
Products	NO	No Consensus
Production	YES	YES
Organisation	YES	YES
Control Systems	YES	No Consensus

TABLE 14 - POST-ACQUISITION ACTION

5.3

All executives considered that the action which they perceived to have taken place was correct with the benefit of hindsight. However, all felt that more action was necessary than had been anticipated. This was particularly so in the area of control systems, as no formal product information existed at all prior to acquisition.

5.4

The latter point was a large contributory factor in determining the length of time taken to complete all the changes planned. All executives agreed that it took almost double the time planned to incorporate Rigby's into Johnson's than had been originally anticipated.

5.5

There was complete agreement that acquisition had been a success, the criteria for success being described as

(a) "We have more profits now "

(b) "We have acheived most of the financial requirements and we have a wider product range."

(c) "It was a valuable experience"

(d) "It will be eventually, and the benefits will probably be better than we imagined."

BACKGROUND

The group manufactures bituminous and plastic damp courses, roofing felt and plastic plumbing accessories, and contracts for roofing and cladding of buildings. The acquisition discussed, made in June 1971, is that of an Irish privately owned company, Vulcanite, manufacturers of roofing felt, damp course and carpet felt in addition to being roofing contractors.

OBSERVERS INTERVIEWED

OBSERVER	POSITION	No. Years	
		In Job	In Company
1	Chairman	3	$3\frac{1}{2}$
2	Managing Director	NA	NA

RUBEROID : FINANCIAL ANALYSIS

(£'000)	1967	1968	1969	1970	1971
Turnover	8,731	8,953	9,587	10,433	12,583
Net Worth	3,360	3,458	3,117	4,329	4,651
Net Assets	4,390	4,475	4,123	5,321	6,293
PBIT	687	613	376	449	771
PAT	324	340	208	247	404
No. Shares ('000)	4,200	4,200	4,200	4,200	4,920
No. Employees	NA	1750	1752	1680	1929
Gross Margin	7.9	6.9	3.9	4.3	6.1
Net Margin	3.7	3.8	2.2	2.4	3.7
Return on net assets	15.7	13.7	9.1	8.5	12.2
Return on net worth	9.5	9.8	6.7	5.7	6.4
Asset Turnover	2.0	2.0	2.3	2.0	2.0
Current Ratio	2.3	2.1	2.1	2.2	2.3
Acid Test	1.6	1.7	1.6	1.8	2.0
Debtors (days)	105	126	116	105	98
Gearing (%)	19	18	19	13	19
Dividend Cover	1.29	1.35	1.32	1.34	1.64
Turnover/employee (£)	NA	5,100	5,500	6,200	6,500
Net Assets per share (£)	1.05	1.07	0.98	1.27	1.28
Earnings per share (p)	7.71	8.10	4.95	5.89	7.92

UBEROID : MARKET DATA BOT 46/4

	1967		1968		1969		1970		1971	
	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI
.edland	47.16	14.2	45.67	17.6	46.80	16.5	51.53	14.5	65.45	18.1
:epworth Ceramics	NF	NF	NF	NF	NF	NF	49.99	17.7	60.66	17.6
PB Industries	43.21	11.9	52.16	18.0	58.16	17.0	62.47	12.8	68.37	12.6
1arley	57.51	14.1	68.34	15.3	70.59	11.2	74.06	9.2	84.24	20.2
:ape Asbestos	32.39	9.4	35.86	13.3	40.55	13.6	45.67	11.6	50.16	12.8
'niversal Grunding	-	12.1	9.00	16.3	21.88*	20.5	22.89	19.8	22.12	16.2
,ath & Portland	30.8	10.3	34. 6	7.3	39.4	6.9	33.5	7.3	30.50	10.5
:entral Manufactur-ng	2.02	33.5	4.69	17.0	7.07	17.4	10.83	17.9	19.08	22.0
'hermal Syndicate	2.95	13.3	3.23	10.1	3.85	18.2	4.34	18.9	3.87	8.5
:rossley Building 'roducts	-	10.4	7.07	10.8	6.85	7.0	7.73	11.4	9.41	19.6
,anbury Buildings	-	24.1	4.21	24.9	4.73	25.9	5.01	24.3	5.66	23.5
.tlas Stone	3.58	23.1	4.07	23.5	4.00	18.3	4.64	17.3	5.72	21.8
1arshall(Thomas)	3.45	23.3	3.87	26.2	5.99	18.8	7.67	20.8	8.73	24.6
Iational Star Brick nd Tile	-	11.1	-	12.3	-	6.3	NI	NI	NI	NI
/ettern Brothers	4.53	10.8	4.65	9.4	4.92	4.1	5.01	4.6	5.60	14.4
1oler Products		19.0	1.45	14.8	1.51	9.4	A	A	A	A
;lockleys	0.47	-	0.57	11.5	0.57	8.1	0.76	13.9	0.94	10.1
;aggeridge Brick	1.23	22.3	1.44	23.1	1.43	20.9	1.46	14.9	1.84*	18.6
:ottness Industries	0.93	1.4	1.04	6.1	1.24	7.9	1.50	7.6	1.59	Loss
'EB (GB)	2.29	25.8	3.17	18.6	3.41	12.6	3.67	14.1	4.36	21.0
heffield Brick	-	-	-	-	-	12.2	-	10.5	-	10.3
.nglo American .sphalt	-	10.3	2.03	10.4	1.69	4.0	1.87	Loss	NI	NI
Iewitt J & Son	0.49	13.6	0.51	15.4	0.59	15.6	0.77	16.1	0.98	15.1
:rowther W	-	-	0.49	51.9	0.46	55.9	0.39	44.7	0.58	55.5

* estimated

RUBEROID : MARKET ANALYSIS

SIZE (£'000)

YEAR	SAMPLE NUMBER	MEDIAN	MEAN	S.D	RUBEROID	SCORE
1967	15	3.45	15.5	20.4	8.73	- 0.33
1968	21	3.87	13.7	19.8	8.95	- 0.24
1969	21	4.73	15.5	21.6	9.59	- 0.27
1970	21	5.01	18.9	23.6	10.43	- 0.36
1971	20	7.19	22.5	26.2	12.58	- 0.39

ROCE (%)

YEAR	SAMPLE NUMBER	MEDIAN	MEAN	S.D.	RUBEROID	SCORE
1967	20	12.7	15.7	6.5	15.7	0.00
1968	22	15.0	17.0	9.5	13.7	- 0.35
1969	23	13.6	14.7	11.3	9.1	- 0.50
1970	22	14.2	15.0	8.7	8.5	- 0.75
1971	21	17.6	17.7	10.5	12.2	- 0.52

SECTION 1 : TRIGGER

1.1

Both executives interviewed agreed that the system for reviewing corporate performance in operation prior to the acquisition discussed was completely formal and regular.

The areas covered were :

Prime company objectives

External constraints

Corporate strengths and weaknesses

Product/Market strategy

Financial Performance

1.2

This regular monitoring system had signalled a need to consider acquisition although Observers disagreed on the exact nature of the signal. Observer 1 described three major factors :

(1) an increasing awareness of gaps in the product line

(2) increasing costs of raw materials and distribution which were due to the company owning only two manufacturing plants located in Scotland and London

(3) a suggestion from a third party that Vulcanite could be interested in discussing a possible acquisition.

Observer 2 described an increasing awareness that the Industry needed rationalisation - "too many companies, to much production".

SECTION 2 : ELIMINATION

2.1

Observers agreed that the signals as described in the previous section did direct the acquisition search to companies competing in the same markets as Ruberoid, and that a formal internal audit covering the following areas had been conducted :

1 An evaluation of the concept of the business
2 An appraisal of corporate objectives
3 An analysis of corporate strengths and weaknesses.

As a result of this analysis, the company had consciously chosen to search for acquisitions which matched strengths or eliminated weaknesses, although Observer 1 explained that this only applied to the management area.

2.2

Concept of the Business

Although executives agreed in broad terms on the results of this analysis, Observer 1 was more specific than Observer 2, viz.

Observer 1 : Paper fluting, slating felts and building contracting
Observer 2 : Building products and contracting.

2.3

Company Objectives

Some variation in emphasis, particulalry in the marketing area, also occurred when executives were asked to describe the types of company objectives which were specified prior to the acquisition.

Table 1 illustrates :

	Observer 1	Observer 2	Consensus (= 2/2)
Financial :			
Profitability	√1	√1	√
Marketing :			
Penetration	√2		
Product development		√2	
Market development		√2	
Customer Service		√3	
Corporate :			
Company Image		√3	

TABLE 1 : RANKING OF PRIME COMPANY OBJECTIVES

With the benefit of hindsight, both observers felt that the objectives which they had described had been the correct ones for the company at that time.

2.4

Strengths and Weaknesses

There was complete disagreement between the two executives when asked to describe the results of the pre-acquisition strengths and weakness analysis.

Table 2 illustrates this point :

	STRENGTHS			WEAKNESSES		
	Observer 1	Observer 2	Consensus	Observer 1	Observer 2	Consensus
Marketing :						
Products					√2	
Marketing techniques			N	√2		N
Production :			O			O
Research & development		√1	C			C
Production Manpower skills		√2=	O			O
Sub-contracting skills		√2=	N S			N S
Distribution			E		√1=	E
Plant Location			N		√1=	N
Corporate :			S			S
Management	√2		U	√1		U
Image	√1		S			S
Control Systems				√3		

TABLE 2 : CORPORATE STRENGTHS AND WEAKNESSES

Two points require further explanation :

(a) The management strength described by Observer 1 was a function of very high morale whilst the weakness was one of structure - "too many Boards, too many Generals."

(b) Observer 2 explained that the existing product line was incomplete as it did not cover all the major markets.

It is worth noting that the production weaknesses of insufficient plant and high distribution costs described by Observer 2 were the major acquisition signal factors as described by Observer 1.

When asked to comment on this analysis with the benefit of hindsight, both executives felt that their own perceptions were an accurate description of corporate strengths and weaknesses at that time.

SECTION 3 : CRITERIA

3.1

Consistent with their previous answers, both executives agreed that the major points considered prior to a final decision were plant location, resultant distribution costs and product fit. Vulcanite fitted these requirements exactly as the company owned plants in Wigan and Belfast and their products and their contracting business was completely complimentary - "they did small, local contracting" (Observer 2). Table 3 shows the complete list of criteria applied to all possibilities as described by each executive.

	Observer 1	Observer 2	Consensus * (=2/2)
Financial :			
Effect on gearing	4=		
Cost	4=		
Marketing :			
Type of products	1	2=	√
Type of markets		2=	
Effect on market share	3		
Production :			
Raw material sources	4=		
Distribution facilities	2	1=	√
Plant Location	4=	1=	√

TABLE 3 : CRITERIA

* insufficient agreement to establish an order of ranking.

SECTION 4 : THE BID

4.1

A third party indicated to the Ruberoid executive that Vulcanite could be receptive to an acquisition proposal and as a result of this, a direct approach was made to the owners of the company. Vulcanite was a private, family owned organisation.

4.2

Payment was made by convertible stock and ordinary stock (ratio 9:1) with a cash option ; the deal being underwritten by Slater Walker.

4.3

A marginal premium over net asset value was paid, although it was not necessary for Ruberoid executives to raise their maximum price.

SECTION 5 : POST-ACQUISITION

5.1

The post-acquisition action described by the two executives is detailed below :

Corporate :	Vulcanite remained as a separate unit, but as the existing Managing Director was incapable of delegating decisions, he was replaced and new formalised management posts were introduced.
Organisation :	The management structure was formalised.
Marketing :	As the products of the two companies varied in type and quality, the Vulcanite products and sales force were retained. (Observer 2). Observer 1 explained that the marketing approach was changed, salesmen were retrained, the Sales Director was sacked and products which had no market penetration were pruned.
Production :	Consistent with pre-acquisition planning, distribution was rationalised, resulting in the closing of a small number of depots. Both the contracting business and production processes were rationalised, machinery was modernised and, as a result of an organisation and methods study, the production flow in the factories was changed.

Control Systems : Executives disagreed on the extent of change in this area, Observer 1 explaining that entirely new systems were introduced and Observer 2 explaining that it had only been necessary to make minor modifications to the existing systems which were "very good.

5.2

Although with the benefit of hindsight, both Observers felt that the action taken had been correct, there was some disagreement on the extent of pre-acquisition planning. Table 4 illustrates :

ACTION AREA	Observer 1	Observer 2	Consensus (=2/2)
Asset Structure	YES	YES	YES
Marketing	YES	YES	YES
Products	YES	YES	YES
Production	NO	YES	No Consensus
Corporate	NO	NO	NO
Organisation	YES	NO	No Consensus
Control Systems	YES	NO*	No Consensus

TABLE 4 : WAS ACTION PRE-PLANNED ?

* "We did'nt know the extent of the problem".

5.3

The disagreement persisted when executives described the length of time taken to satisfactorily complete all necessary action. Observer 1 estimated it to have taken about 3 months, and Observer 2, two years.

5.4

Both Observers agreed that the acquisition had been a success, although Observer 2 modified this by commenting that "we haven't finished yet." The criteria used by both executives to evaluate success were exactly the same, viz.

"Increased market penetration and increased profitability, which established a defensive position."

BACKGROUND

The Steetley company is one of Europe's leading makers of heat-resisting furnace linings, producing most of its own raw materials from dolomite quarries in Wales and magnesia from a sea-water plant at Hartlepool. The Group is also concerned in road-making and building materials and chemicals.

In July 1970, Berk Ltd was acquired. The company manufactured a range of products from industrial and fine chemicals to foundry bonding materials and micronising plant.

OBSERVERS INTERVIEWED

Observer	Position	Number of years	
		In job	In company
1	Controller	$3\frac{1}{2}$	$3\frac{1}{2}$
2.	Financial Director	12	12

STEETLEY : FINANCIAL ANALYSIS

(£'000)	1967	1968	1969	1970	1971
Turnover	20,797	26,519	28,978	47,544	66,488
Net Worth	15,433	16,320	19,495	23,447	25,501
Net Assets	20,858	22,359	29,743	39,553	42,494
PBIT	3,434	4,575	4,791	6,745	6,931
PAT	1,715	2,198	2,509	3,389	5,662
No. Shares	31,888,080	31,888,000	32,560,000	34,800,000	34,800,00[illegible]
No. Employees	NA	2435	3240	4880	4258
Gross Margin	16.5	17.2	16.5	14.2	10.4
Net Margin	8.3	8.2	8.4	7.4	8.5
Return on net worth	11.1	13.5	12.9	14.4	22.2
Return on net Assets	16.5	20.5	16.1	17.1	16.3
Asset Turnover	1,0	1.2	0.98	1.2	1.56
Current Ratio	2.01	1.96	1.74	1.09	1.41
Acid Test	1.46	1.43	1.22	0.80	0.90
Debtors (days)	86	92	96	103	70
Gearing	13.7	13.0	9.6	25.2	27.0
Coverage	15.0	19.3	15.3	5.6	7.6
Dividend Cover	1.32	1.64	1.6	1.84	3.08
Turnover/employee	NA	10,900	8,950	9,750	15,600
Earnings per share (p)	5.4	6.9	7.7	9.7	16.3
Net Assets/share (p)	65	70	91	113	122

BRITISH OXYGEN, LAPORTE, IZAL - MARKET PERFORMANCE (BOT 26/4)

	1967		1968		1969		1970		1971	
	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI	SIZE	ROI
Albright & Wilson	105. 9	6.8	111. 9	6.6	120. 5	5.0	129. 0	5.2	123. 9	5.9
Fisons	78.43	7.2	86.42	10.9	82.23	11.3	88.11	8.0	90.09	15.3
Coalite	12.68	26.8	15.74	30.0	18.80	37.5	19.87	35.2	22.70	28.3
Croda	17.07	16.1	26.85	14.7	28.02	15.9	37.26	16.0	51.16	15.2
Berk	15.94	7.3	17.12	13.3	21.35	13.0	A	A	A	A
Hickson & Welch	—	20.3	10.20	18.3	14.08	14.9	17.01	15.7	19.18	18.4
Midland Yorkshire Tar Distillers	6.34	10.3	12.59	11.7	11.26	11.1	11.34	11.5	11.42	7.8
Coates Brothers	—	27.3	16.53	28.2	18.87	27.0	22.82	26.1	25. 7	27.1
Ault & Wiberg	—	15.7	10.81	15.9	12.61	16.6	13.18	13.6	13.19	15.1
Yorkshire Dyeware	4.47	11.9	4.93	15.0	5.83	14.4	6.38	15.0	7.98	20.6
Cooper, McDougall and Robertson	16.02	30.8	19.01	40.0	22.92	44.5	24.85	42.5	A	A
Philblack	3.49	20.0	4.11	26.4	5.34	33.4	5.09	21.0	5.39	14.4
Fleming	—	22.1	5.78	20.8	6.00	20.2	6.71	17.6	7.30	14.4
Revertex	8.44	19.8	9.26	23.5	12.70	23.8	16.17	16.2	17.77	13.0
National Carbonising	5.52	9.7	5.70	11.8	6.27	16.4	10.76	27.4	20.06	26.0
Jeyes	7.85	15.3	8.69	23.4	12.83	16.3	15.00	14.1	17.96	14.9
Sturge	3.40	19.3	3.95	19.0	4.56	17.4	4.56	8.2	5.31	15.1
Burrell	—	13.8	3.12	13.1	3.45	13.2	3.71	15.8	3.66	16.0
Holliday	—	3.4	3.45	9.0	3.75	10.0	3.73	8.6	4.38	15.1
Scottish Tar	2.56	9.3	2.90	14.7	3.60	21.4	3.52	21.3	NI	NI
Holt Products	4.26	31.0	4.51	29.8	5.51	34.4	5.51	25.0	6.06	22.0
Anchor Chemicals	6.60	20.8	8.17	22.1	9.21	13.8	7.38	10.1	6.18	15.0

Size quoted in £'000,000

A = Acquired

NI = Not issued at time of data collection

STEETLEY : MARKET ANALYSIS

SIZE (£)

YEAR	SAMPLE NO.	MEDIAN	MEAN	S.D.	STEETLEY	SCORE
1967	15	3.45	15.5	20.4	20.8	0.26
1968	21	3.87	13.7	19.8	26.5	0.65
1969	21	4.73	15.5	21.6	29.0	0.63
1970	21	5.01	18.9	23.6	47.5	1.21
1971	20	7.19	22.5	26.2	66.5	1.68

ROLE (%)

YEAR	SAMPLE NO.	MEDIAN	MEAN	S.D.	STEETLEY	SCORE
1967	20	12.7	15.7	6.5	16.5	0.12
1968	22	15.0	17.0	9.5	20.5	0.37
1969	23	13.6	14.7	11.3	16.1	0.12
1970	22	14.2	15.0	8.7	17.1	0.12
1971	21	17.6	17.7	10.5	16.3	-0.13

SECTION 1 : TRIGGER

1.1

Both executives interviewed described a completely formal and regular corporate planning system to be in operation in the company at the time of the acquisition discussed. The system monitored the following areas :

Corporate Objectives
External Constraints
Corporate strengths and weaknesses
Product/Market Strategy
Financial Performance

1.2

This system revealed excessive reliance upon the Steel Industry (Observer 1) from which there was a lack of desirable growth in demand for the products supplied by Steetley (Observer 2). Observer 1 explained that this factor, combined with the heavy reliance upon profits from the United Kingdom activities, had initially prompted the Board to consider acquisition.

SECTION 2 : ELIMINATION

2.1

Whilst both executives agreed that the signals described had focussed attention upon specific categories of companies, there was some disagreement on the types of areas considered, thus -

Observer 1 :	Chemical companies or Engineering companies
Observer 2 :	Mineral and chemical companies.

2.2

A complete internal audit which probed the 'concept of the business', assessed Corporate objectives and evaluated Corporate strengths and weaknesses was conducted prior to a final decision to acquire - this enabled executives to determine the areas in which to seek for synergy.

2.3

Concept of the Business :

As a result of this exercise, Steetley was correctly classified in the business of "extracting and processing minerals and chemicals."

2.4

Corporate Objectives :

Table 1 shows the extent to which the executives interviewed disagreed in their description of areas in which prime corporate objectives were specified.

	Observer 1	Observer 2	Consensus
Financial :			
Profitability	2	1=	√
EPS		1=	
Turnover		1=	
Marketing :			
Product Mix	1		
Customer Mix		1=	
Geographic Mix		1=	
Market development		1=	
Corporate :			
Productivity		2	

TABLE 1 : PRIME CORPORATE OBJECTIVES

Observer 1 was unaware of objectives which focussed attention on the need to further develop interests in overseas markets, both existing and now, but, with the benefit of hindsight, felt that this was a serious oversight.

2.5

Strengths and Weaknesses :

There was almost complete agreement in Observer's perception of the results of this analysis, all strengths and weakness carrying equal weight.

See Table 2 :

	STRENGTHS			WEAKNESSES		
	Obs. 1	Obs. 2	Consensus	Obs. 1	Obs. 2	Consensus
Financial :						
Gearing	√					
Marketing :						
Limited overseas activities				√		
Production :						
Basic technological research	√	√	√			
Extraction processes	√	√	√			
Corporate :						
Management	√	√	√	√	√	√
Financial Control		√				

TABLE 2 : CORPORATE STRENGTHS AND WEAKNESSES

Although he felt that the lack of overseas activities was not identified as a major weakness, Observer 2 was of the opinion that this had been a mistake. Both executives explained that the existing management of Steetley was of high calibre but with an unfortunate tendency towards a production rather than a marketing orientation. With the benefit of hindsight, Observer 2 commented upon two further weaknesses -

(a) the lack of an international outlook

(b) a limited number of "high quality staff."

SECTION 3 : DECISION CRITERIA

3.1

Table 3 shows the factors which the executives perceived to have been considered prior to the final decision to acquire.

	Observer 1	Observer 2	Consensus
Financial :			
Profitability	3=	1=	√ 2=
Profit dependency	2		
Effect on P/E	3=	1=	√ 2=
Hidden or undervalued assets	3=		
Hidden costs (pensions etc)	3=		
Marketing :			
Type and fit of products	1	1=	√ 1
Type of markets (not steel)		1=	
Extent of competition	3=		
Marketing expertise	3=		
Production :			
Research and patent strength	3=		
Technological strength	3=	1=	√ 2=
Corporate :			
Management	3=	1=	√ 2=

TABLE 3 : DECISION CRITERIA

3.2

When asked to comment upon the validity of such an analysis, Observer 1 felt that in addition the geographic fit of production facilities should have been considered, whilst Observer 2 was of the opinion that all the important factors had been taken into account.

SECTION 4 : THE BID

4.1

A direct approach had been made to the executive of the proposed victim firm, as this was the 'code adopted' (Observer 2) in such situations, although some shares were initially bought on the open market as they were cheap at that time and the Steetley shares were on a low P/E ratio which made an exchange of shares expensive.

4.2

The complete transaction took the form of cash or shares and loan stock, cash being chosen as Steetley had a low gearing ratio and was highly liquid.

4.3

A premium over both the pre-bid price and the net asset value was paid although the final price was within the limits set by Steetley prior to negotiations.

SECTION 5 : POST-ACQUISITION ACTION

5.1

Both executives agreed that despite the fact that most post-acquisition action had been planned in outline prior to final negotiations, the company was slow to 'grasp the nettle', resulting in poor communications and some unrest. The action which took place is described below :

Corporate :	Although the trading name of Berk was maintained the company dissolved as an entity. The management structure was rationalised, resulting in some redundancy, particularly in the top echelon.
Organisation :	The three divisions within Berk and the four divisions within Steetley were re-organised to form three new Groups - two combining one Steetley and one Berk company, and one combining two Steetley and one Berk company.
Asset Structure :	The 50% interest in St Albans Sand and Gravel was sold to the other joint owners as required by an agreement made in anticipation of the acquisition of Berk by a third party. Berk Pharmaceuticals was also sold as it did not fit with the product structure of the new, combined Group (Observer 1.)
Marketing :	As a result of the re-organisation, all central services, including the marketing function, were combined.

Products : Few changes were made in the product line, a small number of loss-making lines being eliminated. Consistent with earlier remarks, Observer 2 commented that changes were unnecessary since a major area of synergy was "our research behind the depth of their business."

Production : Only minor changes, consistent with the normal 'tightening-up' process, were made within the production field.

Control : Although Steetley executives knew that it would be necessary to standardise control procedures, they did not know the extent of the problem. Berk possessed a computer which was far too large for their needs, operating systems which were too complicated to produce information which was of any real use to management.

5.2

Although Observer 2 was of the opinion that the company was slow in dealing with problems, he felt that, on the whole the re-organisation had been satisfactorily completed within the time allowed. Observer 1 felt that it had taken longer than anticipated.

5.3

Both Observers agreed that the acquisition had been a success both in financial and general strategic terms. It had reduced the dependency on one industry, producing a wider base in the areas of existing knowledge.