

CHAPTER 4 IMPLEMENTATION OF METHODOLOGY

Introduction

Chapter 3 has described the process of developing an initial yet substantive research programme, including the process of two pilot interviews with senior airline executives. This chapter describes the subsequent process as the main set of interviews was undertaken and the questionnaire developed to the point where it was ready to be used.

The evolution of the interview programme and its relationship with the content of the questionnaire is described. The (non-) issue of September 11th is discussed, as are issues surrounding the use of financial data.

Interviews

The first of the two initial interviews was arranged with a personal contact, and through him the second interview was arranged. For both interviews, the projected structured interview was used.

As a result of these two interviews, two practical outcomes were noted:

- The proposed structured interview worked well, with the exception of duration - they both ran to about forty-five minutes. With the inclusion of a subsequent mapping exercise, which was estimated to last twenty to thirty minutes, this was felt to be unrealistically long in terms of seeking access to senior executives. As a result, a number of questions were removed, and two were designated 'optional' to allow flexibility when conducting the subsequent interviews. The questions which were removed were generally those relating to organisational background - while to include these would have been helpful, it was felt that they could not be included to the exclusion of questions about 'success' and 'failure'.
- An approach to the selection of interviewees based on personal contacts, direct and indirect, was not going to work. Both interviewees were very willing to

recommend contacts and allow their names to be used to help gain access.

However, even with just two lists of further interviewees there was considerable overlap in suggested names, and considerable bias in the functional backgrounds was noticed, with a very high number of accountants being suggested.

In consequence a new approach was adopted. The aviation journal *Flight International* publishes an annual Directory of World Airlines, naming all the directors of the airlines and giving contact details. A letter was sent to the first 81 directors listed in the 2001 edition, in alphabetical order of airline name, restricting letters to directors of airlines with their registered office in the United Kingdom or the Republic of Ireland (from African International Airways to Channel Express); the letters requested access in principle for a forty-five minute interview, and a copy is given as Appendix A. The letter was designed to make clear the purposes of the research (Burgess, 1984) and to optimise any potential mutuality of acquaintances by specifying the author's airline training background. The utility of the latter approach was specifically confirmed in one case only however. It has been argued that

“negotiating access to organizations for the purposes of research is a game of chance, not skill.”

(Buchanan, Boddy and McCalman, 1988)

and this was certainly confirmed in this research - on one occasion a chairman declared that no executives would have time to give to a researcher, while his chief executive officer was writing to agree an interview. Similarly, the managing director of another airline stated that it was against company policy to give interviews and yet one of his fellow directors readily granted an interview.

To encourage co-operation, the letter was sent on Cranfield University paper and a prepaid reply envelope addressed to Coventry University was provided. Anecdotal evidence subsequently suggested that many airline executives are more likely to offer access to Cranfield researchers than researchers from other universities. It was not, however, clear whether this 'special relationship' involved the university as a whole, the School of Management and/or the College of Aeronautics.

This process resulted in a further sixteen interviews, and one further interview was arranged through personal contact. There was also a small residual number of respondents willing to be interviewed, but who were not approached at this stage. With a total number of completed interviews of nineteen, an unexpected factor mitigated in favour of a temporary halt to interviewing: the events of September 11th 2001.

In the immediate aftermath it became clear that senior executives were likely to be unavailable because of the time commitment needed to consider the implications of September 11th and possible responses. To give a specific example, some market research had been begun as a direct spin off from a PhD interview, and this was put on hold due to the need to address more urgent issues within the airline. Two issues needed to be considered:

- When would ease of access return to a pre-September 11th level?
- Would September 11th have any impact on interviewees responses?

Industry contact suggested that by the beginning of January the immediate responses to September 11th had been worked through, and executives would again be able to make time available. A further set of 56 letters was sent out. These, together with the outstanding previous positive contacts, enabled a further eleven interviews to be arranged, bringing the number of interviews conducted to a total of thirty.

Each of the post-September 11th interviewees was asked in the informal context outwith the structured interview about the impact or otherwise of September 11th on the airline business in the United Kingdom and Ireland. There was almost complete consensus that:

- Any business impact had been very short-term, and in many cases there had been no impact at all.
- Only airlines with actual or proposed long-haul routes, particularly transatlantic routes, had suffered (Aer Lingus, Blue Fox⁷, British Midland⁸, British

⁷ Blue Fox was in the initial planning phase at this time but had not begun operations.

⁸ British Midland had not begun transatlantic operations but was acquiring aircraft for this purpose.

Mediterranean⁹ and Virgin Atlantic). Evidence of the shortness of this impact is provided by a report that British Mediterranean had suffered a 34% drop in passengers following September 11th but had fully recovered by the following January (Flight International, 2002).

- As widely reported, any perceived outcomes were in fact due to changes in the economic cycle and not in any way unexpected.

Given the lack of longer-term impact and limited short-term impact, the research methodology did not need to be altered in the light of September 11th. It was however considered prudent to compare interview responses from the first nineteen interviews (pre-September 11th) with the subsequent interviews. Only one of the subsequent eleven interviewees mentioned September 11th, and only one questionnaire (which was sent after September 11th) respondent made any reference to it. There was thus no significant difference in responses, and therefore no evidence to suggest that September 11th was a problem with respect to the research.

The selection of directors to approach was random in the senses that:

- there was no bias towards particular kinds of directors - all directors in an airline were approached;
- airlines were approached in alphabetical order, a system which precluded internal bias, but depended on actual responses to determine external bias.

The actual responses provided a good cross-section of types of airlines and a broadly representative cross-section of types of directors was interviewed. A list of people interviewed is given as Appendix D. Names have been removed, and the list re-presented in alphabetical order of airline for reasons of confidentiality, all interviews having been agreed to be taking place under the Chatham House rule (the Chatham House rule was explained to interviewees as meaning that anything said could be quoted but that confidentiality of source was guaranteed, both in terms of the individual and the individual's airline). In all other contexts any number associated with a

⁹ British Mediterranean specialises in flights to Central Asia and Africa.

particular interview or map corresponds to the chronological order of the interviews and not to the listing order in Appendix D.

The only obvious lack of representation in the interviewees was a lack of executives from Irish airlines. This lack was through self-selection, or rather, lack of self-selection, executives from all Irish airlines having been approached, with the exception of those from Ryanair, since these airlines all fell within the alphabetical sequence finally covered - African International Airways to Excel Airways. As is evident in the initial approach letter (Appendix A), it was made clear that interviews could be conducted at sites to suit the interviewee. Interviews in fact took place in locations from Exeter to Aberdeen.

The following protocols were proposed to each interviewee, and were accepted in all cases:

- The interviews would be recorded, and a transcript produced. The transcript would be offered for checking.
- Interviews would be conducted under the Chatham House rule.

Causal maps were produced for analysis by all interviewees, with the following exceptions:

- The first two interviewees who piloted the interview process - their maps were not included in the analysis at this stage as they had been produced in a manner that was not consistent with the standardised production of the subsequent maps.
- Two interviewees who were called away at the termination of the interview and subsequently failed to produce maps in spite of reminders ([I04] and [I05]).

Transcripts and causal maps as transferred to Decision Explorer software were offered to interviewees for comment. With the exception of some very minor changes to the transcripts, mainly where the tape had proved inaudible, no changes were suggested. Changes were entirely restricted to errata, and no additions or amendments to what had actually been said were proposed. In the case of the causal maps, no errata were found, but two sets of initials were revised to the full text version at the request of the author.

The causal maps produced are shown in Appendix G.

Number of Interviews

As noted above, the original intention was to conduct 15 to 20 interviews. As the interview structure was refined, specific factors shaped the ultimate number of interviews:

- The questionnaire contained specific prompts for Key Success Factors (see Section 3 of Appendix C). Although two write-in factors were prompted, it was felt that to ensure the rigour of the choice of factors offered for scaling, the interviews would provide a vehicle for ensuring that all important factors should be on the list. While Guðmundsson (1998a) offers a list of such factors, it has already been noted that his research was conducted in a different business culture. The list of factors was thus re-established empirically. Almost no new factors were emerging from interviews by the completion of the pre-September 11th interviews, at which point a temporary halt in interviewing was required. This then established 19 as the minimum necessary number of interviews for the purposes of refining the questionnaire.
- With the introduction of causal mapping, associated in practical terms with the interviews, it became necessary to produce 25 to 30 causal maps. These were generated by 30 interviews, and thus it was this point at that the interview programme was concluded.

Use of Software to Facilitate Content Analysis

At first the use of NUD.IST as an aid to content analysis had been planned (Weber, 1990; Gahan and Hannibal, 1998). However, following the analysis of the two pilot interviews and further thought as the next three or four interviews were conducted, it became clear that any benefit that would be gained by using NUD.IST would be rather less than initially envisaged because of the tight structuring of the interviews. This structuring resulted in a limited range of responses, which was consistent with the focus of investigation being cross-interview with respect to individual questions. It was

therefore found to be more productive to look for patterns by aggregating responses to individual questions into tables in Word documents. It also became clear that emergent themes were less subtle than had been originally envisaged. Had any one of these outcomes not been the case the use of NUD.IST would have been continued.

Questionnaires

In order to achieve a reasonable number of returns, it was necessary to circulate the questionnaire to the entire population of UK and Irish airline board members in so far as this was possible. The *Flight International* Directory of World Airlines 2001 was used to assemble a database of names and addresses. Where the Directory listed four or fewer directors, other sources were used to supplement the database, principally consulting airline websites and internet company databases. This approach yielded a final list of 346 names and addresses, with, however, a small amount of duplication, fourteen executives holding two posts. There were therefore 332 individuals in the database, thirty of whom had been interviewed, and thus it was possible to send out 302 questionnaires to the remaining individuals.

The text of the questionnaire, produced as a Word document, is given in Appendix C. To facilitate the input and analysis of data, a second version, with identical content, was produced in PinPoint.

Financial Data

Apart from the ever-present requirement that any financial data should be accurate, there were other requirements which influenced the operationalisation of the financial data-gathering.

While company accounts may seem a good source of data, there are problems with them. In particular, notwithstanding the use of Accounting Standards, there remains considerable flexibility in the way that financial outcomes are reported. Terry Smith has argued that the variation is widespread (Smith, 1996). He cites a number of examples from the world of aviation:

- Bristow Helicopters: fleet depreciated over 8 years compared with 25 years life (p.206);
- British Airways: full provision for deferred tax could produce an estimated 36.4% more earnings per share (p.171);
- British Airports Authority: depreciation v. economic lives of certain assets (p.102). During the period 1988-1990, six major projects involving terminals and runways were carried out at a total cost of £592m. During the same three years the period over which such assets were depreciated extended noticeably:

Year to 31 March	1988	1989	1990
Terminal lives (years)	16	30	50
Runway lives (years)	23.5	40	100

The reasons for such approaches may lie in a variety of reasons, from wishing to minimise tax liability to wishing to look unattractive to predatory asset strippers. Whatever the reasons, they will tend to result in different companies reporting in different ways.

This problem was largely, but not completely, solved by the use of financial data submitted to, and made available by, the CAA statistics website (Civil Aviation Authority Economic Research Group, 2002). This government agency requires that airlines report financial data in specific ways, and thus the data they gather and then publish is appropriate for comparative studies of financial results.

While the CAA thus provides data suitable for comparisons to be made between UK airlines, it does not of course supply data on Irish airlines, and nor does its Irish equivalent, the Irish Aviation Authority. Financial data was only available as provided in published accounts, and was not of course calculated in sterling, but in Irish punts. Sensitivity analysis of differing exchange rates showed this factor to be unimportant when overall comparisons of airline performance were being made.

An alternative source of secondary data, the *ICAO Digest of Statistics: Financial Series* was investigated. This held the prospect of allowing comparison between UK and Irish airlines since, as an international agency of the United Nations, the International Civil

Aviation Authority (ICAO) draws standardised data from airlines across the world. However, the *ICAO Digest of Statistics: Financial Series* does not provide the comprehensive coverage of its population in the way that the CAA ERG does. During the period under consideration only one instance of an Irish airline's data can be found in the ICAO data, the sole case being that of Ryanair's financial data in the 1999 issue. Coverage of UK airlines by ICAO is partial and inconsistent across the years, and this source was therefore not used.

Two potential problems arise with the use of secondary data. Firstly there are the general problems of all secondary data. Ball identifies these as quality, timeliness, coverage and definitions (Ball, 1991). Thieart argues that the issues associated with using secondary data are its ontological status, its impact on validity, its accessibility and its flexibility (Thieart, 2001). Timeliness, coverage, definitions, accessibility and flexibility are not issues that affected the research process in this thesis. As far as quality and impact on validity are concerned, and given that financial data cannot be obtained by an external researcher as primary data, the choice of CAA data offers the best possibility. Its collection by the appropriate UK government agency in a standardised format provides a basis for valid comparisons between airlines. With respect to ontological status, CAA data enjoys a high status in the research community, but, as Thieart cautions (p.75), there may be the danger that the use of such secondary data results in simply externalising the issue of validity. Again, the legal basis, the governmental status of the CAA as the collector of the data, and the standardised format in which the data is collected mitigate against this danger. The non-standardised format of financial data published by the airlines themselves offers less validity for cross-airline comparisons.

The second issue, which is specific to the CAA data sets, is the currency of the data. In general, operational data is available from the CAA one year after the time period which it covers, whereas financial data is not generally available until two years afterwards. Where such data is tested for correlation with perceptions of 'success', the year data sets have been treated not as, for example, in the case of operational data, '2000' and '1999' but as 'most recent year available to airline executives and liable to influence their perception' and 'most recent year but one available to airline executives and liable to influence their perception' respectively.

The outcomes of the first nineteen interviews were available before it was necessary to decide how to address the issue of Irish airline financial data, and these outcomes made it very clear that only two Irish airlines, flag carrier Aer Lingus and no-frills operator Ryanair, were being mentioned as examples of ‘success’ and/or ‘failure’, and that all other Irish operators were considered to be small-scale and essentially peripheral to the focus of notions of ‘success’ and ‘failure’ held by UK and Irish senior airline executives in general¹⁰. Data for both these airlines was available on the internet from the companies’ own websites, and, in the absence of a pan-national standardised database, there was no choice but to compare UK CAA data with these Irish company accounts data. Anecdotal evidence from the interviews indicated that UK executives had no trouble accepting the validity of the data that Ryanair published, and they were, in fact, more sceptical of data attributed to Ryanair’s most direct UK rival, Easyjet. None of those executives who expressed such scepticism offered a rationale or any evidence for such scepticism. In short, comparability was not considered problematic *within the industry*, even by finance directors.

¹⁰ A review of the full set of nominations from all interviews and questionnaires confirmed that Irish airlines other than Ryanair and Aer Lingus accounted for only 1.1% of the nominations.

“Aviation thought for the week

It only takes two things to fly: airspeed and money.”

(Bacon, 2002)

“Performance measures, or, better, measures suspected of measuring performance, are generated far more rapidly than people are able to digest them.”

(Meyer, 1999)