8 Methodology: Study Two

8.1 Sampling

The sampling frame was British Airways. Sampling strategy was stratified by geographical location, department and grade. This was to ensure that as far as possible all aspects of the airline were represented in this research. Despite the sampling strategy being stratified, some corporate departments in some participating countries were not included as they were headquarters’ functions. Diagrammatic representations of the sampling strategy are given in Figures 8.1, 8.2, and 8.3 below.

Figure 8.1 illustrates the stratified sampling strategy by geographical region. The participating countries of each region are also listed for information. As a result of other corporate initiatives, not all countries of operation could be invited to take part in this study. Specifically a number of African nations and those of Central and Latin America did not take part. However, those that were included were the largest of British Airways’s operations and the main markets in which British Airways operates.
Figure 8.1: Stratified sampling strategy of British Airways by geographical region

Figure 8.2 represents the stratified sampling strategy of British Airways's departments. All departments in British Airways are represented in this study and are indicated below. However, not all were represented across all the countries above. Some departments in some countries were invited to participate, but were not able to take part due to ongoing corporate initiatives.
Figure 8.2: Stratified sampling strategy of British Airways by department

Figure 8.3 represents the stratified sampling strategy by job grade. As far as possible all job grades indicated below have been represented in this study.

Figure 8.3: Stratified sampling strategy of British Airways by job grade.
8.1.1.4 Description of Job Grades

A description of British Airways management grades was given in section 6.1. The description that follows is of non-management job grades. Below management grade there were eight administrative grades. A1-A7 spanned a wide range of jobs within British Airways and included a number of professions, increasing in seniority and responsibility, with A7 as the top grade. A1-A7 were not performance managed. Between A7 and the management grades there was a performance-managed grade called APPG. The APPG grade covered a range of departments and jobs that could be objectively performance-managed. The APPG was also based on professional affiliations. In terms of seniority it was similar to the A7 grade.

There was also a range of grades in the Information Management (IM) department of British Airways. These ranged from IMA to IMD for the non-management grades and was similar to the A1 to A7 grades. The equivalent IM management grades were IME – IMG.

In Engineering there was an additional grade, TMG, which was a technical management grade equivalent to the MG grade discussed in section 6.2.

8.2 Sample Information

8.2.1 The Airline

The sample was taken from British Airways. There is only one previous study available that researched OL in the airline industry, or airlines as learning organisations (Tarrini, 1998). Also, case studies of Organisational Learning in global organisations do not appear to have been conducted and are not available in the published literature.
8.2.2 Geographical Regions

As this study was being conducted, British Airways was undergoing changes as part of its global strategic transition. Consequent restrictions meant that the study was denied access to some geographical regions. Three main geographical regions were unable to participate. These were Central and Latin America, and Africa (with the exception of Egypt and South Africa).

8.2.3 Departments

There were no restrictions on access to departments in British Airways. All departments (n=21) participated in this study, though they were drawn from a number of different countries. The participating departments in this research are given in Figure 8.2.

8.2.4 Participants

The sampling frame consisted of 2000 employees who were invited to participate within the sampling parameters discussed above in section 8.2.3 above. The final number of participants was 558, giving a response rate of 36%, in line with that reported in many survey-based studies. The sample consisted of management and non-management personnel. Participation was voluntary and all information obtained was anonymous.

8.3 Data collection

The methods of data collection for this research were quantitative, obtained by means of a self-completion questionnaire survey.

The data were collected over 4 months in the middle of major organisational restructuring; from September 2000 through December 2000. The transition period ran from the beginning of the 1999 financial year through to the

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autumn of 2001. During the period in which data were collected, British Airways’s changes were at their height.

8.4 Questionnaire

8.4.1 Methodological Considerations of Questionnaire Use

The main method of data collection for this research was by means of a questionnaire survey. A number of items identified as ‘best practice’ in the literature, and operationalised within British Airways in Study One of this research, have been called organisational learning competencies. The questionnaire items were derived from the analyses of the interview transcripts undertaken in Study One in order to examine the perceptions of employees toward Organisational Learning within British Airways. The use of a questionnaire was an initial step in providing a measurement against best practice identified in the literature, from which it was anticipated that future areas of investigation would be identified.

However, Beer and Spector (1993, p. 647) pointed out that questionnaires are “of limited effectiveness in the learning diagnosis”. Beer & Spector (1993) do not acknowledge questionnaires as a tool for organisational learning diagnosis. Beer & Spector (1993, p. 647) also suggested that “the preconceived categories represented in the questions may measure theoretical constructs that are relevant [only] to the developer”. In the present instance, however, this was not the case. The items included in the Organisational Learning Questionnaire for this study were those recommended by the literature as ‘best practice’ for successful organisational learning (OL). The results from Study One indicate that these competencies were relevant to British Airways, the participating organisation. The items were of relevance to the facilitation of organisational learning mechanisms within the company. Following Beer & Spector (1993, p. 647) it should be asked do “they [questionnaires] speak to the true needs of the organization?” Beer &
Spector (1993) also suggested that "the knowledge gained from questionnaires will lack the kind of richness and texture necessary to understand the causal factors that underlie the organization's shortcomings" (p. 647). Study Two presented here addressed issues that are important in the initial steps in the implementation, maintenance and development of OL in an organisation. Therefore it did address the true needs of the organisation since the knowledge gained from the questionnaire was used to address the objectives given above and provided the starting point from which further action could be taken. Moreover, this thesis, through the use of a questionnaire, sought to raise employee levels of consciousness of the Organisational Learning climate in order that employees of the organisation could act on subsequent recommendations of the findings of this research (Beer & Spector, 1993).

As the objective of the research was to look at perceptions of OL competencies, a questionnaire survey, acting as it would as an audit of OL in the airline, was the best method to use. Beer & Spector (1993) did not recognise the importance of questionnaires when, as an initial step in the implementation or development of OL, they are used to identify the competency profile in an organisation, or to investigate any subgroup differences. Indeed, as the research of this thesis was exploratory, the use of a questionnaire survey was the most appropriate way to achieve the objectives given above, particularly given the global coverage of the study. Tsang (1997) described the use of questionnaires as the descriptive theorising stage of OL. The results of the application of a questionnaire gave an understanding of the relationships between the variables in order to then formulate 'prescriptions' - that is, application of the findings of the research in practical terms (Tsang, 1997).

The questionnaire was developed from the results of Study One and called the Organisational Learning Questionnaire (OLQ). The questionnaire was designed and developed by the author specifically for this study. The items included in the questionnaire were compiled based on the qualitative analysis with the exception of the affective and continuance organisational commitment items,
which were adopted from Allen & Meyer’s (1990) questionnaire. The aim of the questionnaire was to act as a diagnostic tool in order to develop a competency-based framework of OL and to assess the OL competency climate profile of a multinational organisation by examining occupational subgroup, departmental and regional differences in perceptions of Organisational Learning competencies. The items for each organisational learning competency were developed from what the literature suggested as “best practice” for organisational learning.

8.4.2 Questionnaire Structure

The Organisational Learning Questionnaire (OLQ) is given in Appendix B, page 187. The OLQ was composed of four pages, including the participant’s instructions page. The questionnaire was composed of four sections.

Section 1 required biographical information to allow sample representations and statistical comparisons of the occupational subgroups, departments and geographical regions and included Department/Business Area, Grade, Length of Service and Gender.

Section 2 examined employee perceptions of the competencies at a departmental level. For each competency, 4 items were constructed to check for internal consistency during analysis. Each item in this section was derived from the analysis of the interviews undertaken in Study One and representative of the themes that emerged during the qualitative analysis.

Section 3 examined employee perceptions of the competencies at an organisational level. For each competency 4 items were constructed to check for internal consistency during analysis. Each item in this section was derived from the analysis of the interviews undertaken in Study One and, as discussed above, was representative of the themes that emerged during the qualitative analysis.
Section 4 (items 53 – 68) sought to establish the level of Continuance and Affective Commitment in the organisation. Argyris (1994) identified pride in one’s company as a positive point, indicated by 75% of respondents to an employee survey used in a large, multinational energy company. Amongst the positive points indicated by the employees was high job satisfaction. It was also suggested in Argyris’ (1994) study that pride may be related to a high score in organisational commitment. A full job satisfaction measure was not included here because it was not the main objective of the research. The Employee Opinion Survey developed and used by British Airways had several items investigating job satisfaction and results indicated that job satisfaction was not low in the organisation.

8.4.3 Questionnaire Scale

The scale adopted for the OLQ was a five point Likert-type scale. The scale was as follows: 1 = Strongly disagree, 2 = Disagree, 3 = Unsure, 4 = Agree, 5 = Strongly agree.

The scale for the items on the Organisational Commitment Scale used the same five point response format. To reduce the possibility of response set, the Continuance Commitment Scale items 53 and 56 were reverse scored. The Affective Commitment Scale items 64, 65, 66 and 68 were reverse scored. The items and reverse scoring are the same as those developed by Allen & Meyer (1990) in their questionnaire on organisational commitment, so that in the final computation an increase in score represented an increase in commitment.

8.4.4 Questionnaire Item Development

The organisational learning competencies identified from the literature were operationalised to British Airways and an organisational learning survey was written to incorporate them.
The competencies included in the OLQ were those operationalised in Study One and the OLCIM, namely: Sharing Information, Feedback, Empowerment, Experimentation with Ideas, Creativity, Acting on Information, Questioning Everyday Routine, Continuous Learning and Development, Learning from Others, Competitor Awareness, Cross-functional Awareness and Working with other Departments.

8.4.5 OLQ Pre-testing

The OLQ was pre-tested prior to administration. It was administered to managers and non-managers in British Airways’s Recruitment Department in London. The only changes made were grammatical, both in the introduction and the questionnaire itself.

8.4.6 Questionnaire Administration

The administration of the OLQ survey was by e-mail on the British Airways Lotus Notes version 4.5 system. Participants were informed that they could either return the completed questionnaire by e-mail or by post. Instructions on how to return the questionnaire by e-mail were included at the end of the questionnaire, together with the address of the researcher in case they preferred to send it by post. Given the provisions of the Data Protection Act 1998, care was taken that the method of research and collection and storage of obtained data on individuals met legal requirements as stipulated by English Law. Moreover, the method of research also met ethical requirements required by the British Psychological Society (BPS) and the European Federation of Professional Psychological Associations (EFPPA).
8.5 Data Analysis

The following analyses were conducted on the data obtained from the OLQ.

8.5.1 Sample Descriptive Statistics

Descriptive and frequency statistics of the sample were obtained detailing means, standard deviations and medians.

8.5.2 Factor Model of Organisational Learning

The questions from section 2 and 3 of the questionnaire were factor analysed together to obtain a Factor Model of organisational learning (OL). From the obtained factors Cronbach’s alpha (α) reliability analyses were conducted, the results of which are given in chapter 9.

8.5.3 Bivariate Correlation

Pearson Product-Moment bivariate correlation coefficients (two-tailed) were computed by correlating the factor items, organisational commitment and length of service.

8.5.4 Multiple Regression

Multiple regression was conducted between the factors against organisational commitment and length of service in order to predict the contribution made by individual predictors in terms of their ability to explain variance in individual criteria. An optimised model for predicting a chosen criterion was preferred and therefore post hoc multi step modelling was used with stepwise variable entry.
8.5.5 Discriminant Function Analysis

Direct Discriminant Function Analysis (DFA) to predict group membership on the basis of weighted linear combinations of predictor variables was computed for the criterion variable job grade (management and non-management personnel).