

(PART II)

**A GENDER ANALYSIS OF THE
CAREER PROGRESSION OF IT
MANAGERS**

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PHD

1997

Chapter 7 - Case Study 2 - Utility Co

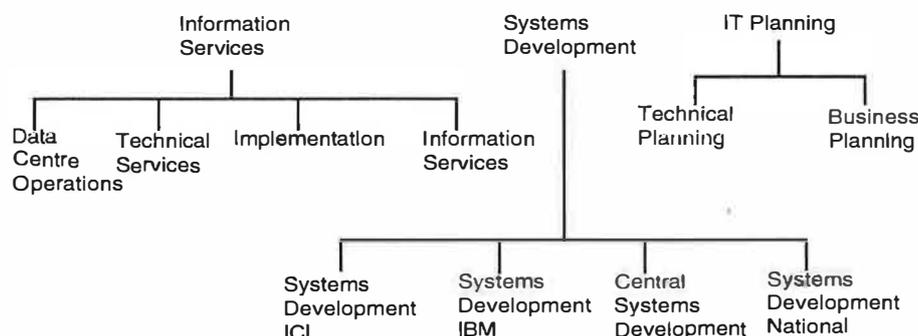
7.1 Context

Utility Co is an engineering based utility organisation that employs over 82,000 people world-wide. At the time of the case study in March 1993, Utility Co was divided geographically into 12 Regional operating companies.

Prior to 1991, Information Technology within Utility Co was decentralised, with each Region having its own responsibility for developing, implementing and maintaining IT systems. In 1990, a strategic decision was taken to centralise IT. This decision was made in part to reduce costs and wastage incurred through duplication of systems (centralisation was planned to include a reduction in total IT staff by two thirds).

By 1st January 1992, centralised IT headquarters had been established and a Director of IT and department heads appointed. The centralised IT function was organised under 3 major areas: information services; systems development and IT planning (Figure 7.1).

Figure 7.1 Utility Co IT Department Structure



The decision was also taken by the company that the move to centralisation of IT should be gradual. At the time of the case study, therefore, in addition to a centralised IT structure being developed, decentralised IT divisions within each Region continued to operate. Each member of Regional IT staff at this time officially reported to IT Headquarters (ITHQ) based department heads. The IT managers still based at the Regions acted as liaison officers between ITHQ and the Regional Chairman and management committees. They also fulfilled a co-ordinating and management role over Regional IT staff.

Given the changes within the IT division and the incomplete centralisation process, the case study was split between two sites. Interviews were conducted within a Region based around

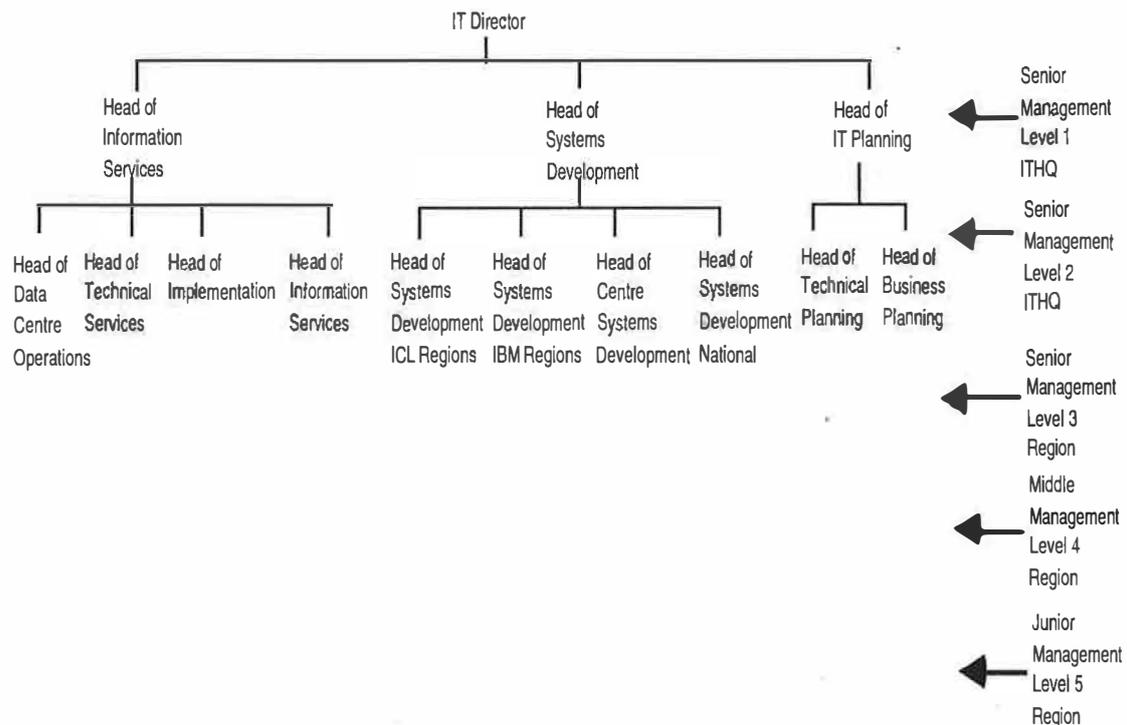
London (referred to as 'the Region') and within ITHQ in order to gain the views of managers in both locations. The Region examined in the case study was the third largest in the company, with 8,000 employees and 2 million customers.

7.2 Utility Co Staff and Approach to Equal Opportunities

Around 3,000 IT staff are employed within the Region and 500 in ITHQ. Overall, the management structure for the IT division comprises 6 levels of management, including the IT Director (Figure 7.2).

Figure 7.2 shows that senior management staff at levels 1 and 2 and the overall IT Director are all based at ITHQ. Senior Management level 3, middle and junior managers are employed at Region level.

Figure 7.2 Utility Co IT Division Management Structure

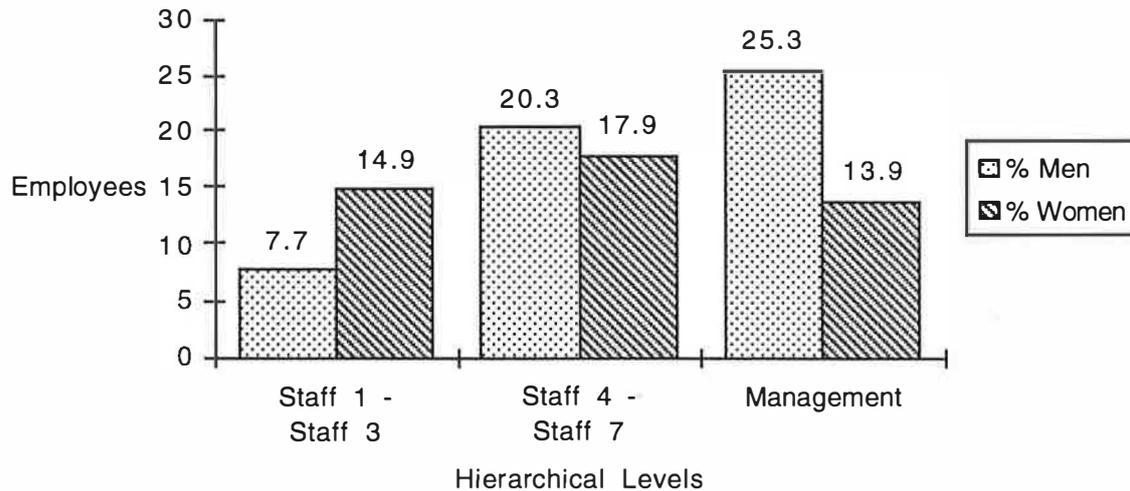


Just under half of all Region staff (46.7%) are women (Figure 7.3). Almost one third of all women employees (14.9%) work in lower staff grades (S1-S3), almost double the proportion of men at this level (7.7%).

The distribution between men and women is more even at higher staff grades (S4 - S7) where only 2.4% less women than men are employed. This shows a potential pool of female labour for

promotion to higher grades. Despite this, however, there is a large concentration of men in management positions.

Figure 7.3 Distribution of Men and Women at Staff and Management Levels Overall Within the Region



Having provided figures for the overall distribution of men and women staff within the Region, Utility Co were unwilling to provide full organisation charts showing the number of managers at each level within ITHQ and the Region IT Division. They were also unwilling to provide information on the gender breakdown of IT staff. Consequently, a feel for the number of IT managers employed at the Region and ITHQ and the proportion of men and women IT managers can only be drawn from case study interview and observation data. In using this data, it was found that, in addition to the IT Director position being held by a man, 1 of the 3 senior management level 1 posts at ITHQ was held by a woman. In addition, 1 of the 10 senior management level 2 posts at ITHQ was held by a woman. It proved more difficult to glean accurate information on the gender distribution in management from interviews and observation within the Region. Indeed, a difference appeared between the perceptions men and women interviewed at the Region had of the gender distribution in IT. For example, whilst 1 senior Regional manager (level 3) perceived the gender distribution in IT to be fairly equal, another woman junior manager at the Region felt it was male dominated:

"...as a whole in the IT department, you'll probably find as many females as male and I think we show a fairly good representation of male and female managers because of that."

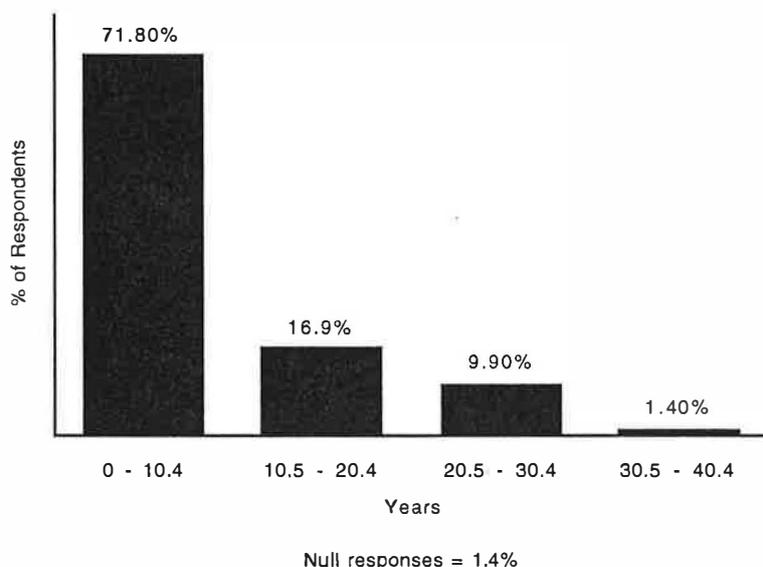
"...generally IT is very male dominated, ...traditionally there have been male managers, but they've started to appoint women."

addition, the section looks for any particular differences between men and women's career history.

5.3.1 Length of Time Spent Working in the Company and in Current Job

The majority of IT managers had been working within their present company for up to 10 years (Figure 5.6). A chi-square test showed that there was no significant relationship between gender and the length of time respondents had been working within their present company.

Figure 5.6 Length of Time Spent Working in the Company

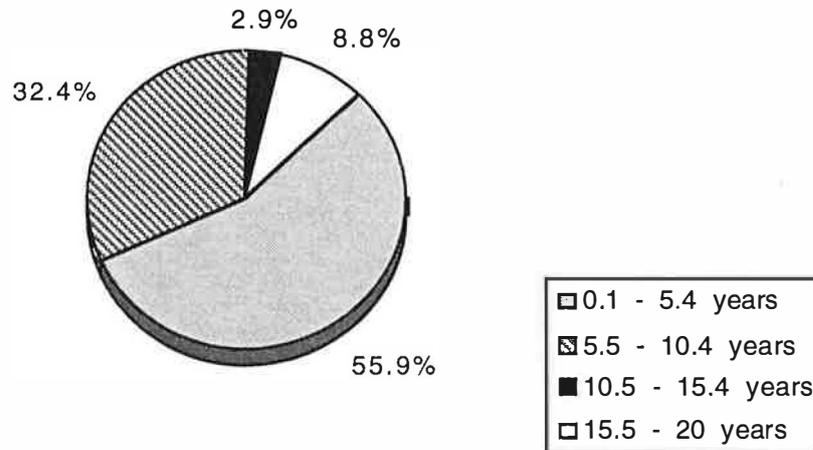


Almost all the respondents (94.4%) had been working within their present job for up to 5 years. A chi-square test showed that there was no significant relationship between gender and the length of time spent working within the respondent's current job. If the women in the sample had been working in their present job for a shorter period of time than the men, this may have indicated that they had progressed to their present position more recently than the men. However, this was not the case within this sample of managers.

5.3.2 Previous Experience in Areas of Work Other Than IT

Just under half of the respondents (47.7%) had worked in other areas before moving into the field of IT. Of this 47.7%, over half, (55.9%), had spent up to 5.4 years working in at least one other area (Figure 5.7). There was no significant relationship between respondents who had worked in previous areas before entering IT and gender.

Figure 5.7 Length of Time Spent Working in Other Areas Before Entering IT



Overall, the managers appeared to have worked within 8 different major areas (Table 5.3). Of the 8 areas, finance and accounting, including insurance and banking, appeared the areas most frequently referred to⁴⁴. Thus, many IT managers in the sample appear to have brought with them knowledge of business areas other than information technology. This supports recent literature which argues that IT managers increasingly need business knowledge in order to ensure IT solutions meet business needs and can help strategically guide organisations (e.g. Hacket, 1990; Ciborra, 1992; Larsen et al, 1991; Hammond and Holton, 1991).

Table 5.3 Previous Areas Worked in by IT Managers

| Area of Work | % Respondents | Actual Number of Respondents |
|---------------------------|---------------|------------------------------|
| Finance & Accounting | 21.1 | 15 |
| Human Resource Management | 1.4 | 1 |
| Construction | 2.8 | 2 |
| Marketing | 5.6 | 4 |
| Civil Service | 2.8 | 2 |
| Academic Research | 8.4 | 6 |
| Materials Management | 2.8 | 2 |
| Education | 2.8 | 2 |
| TOTAL | 47.7 | 34 |

5.4 Qualifications

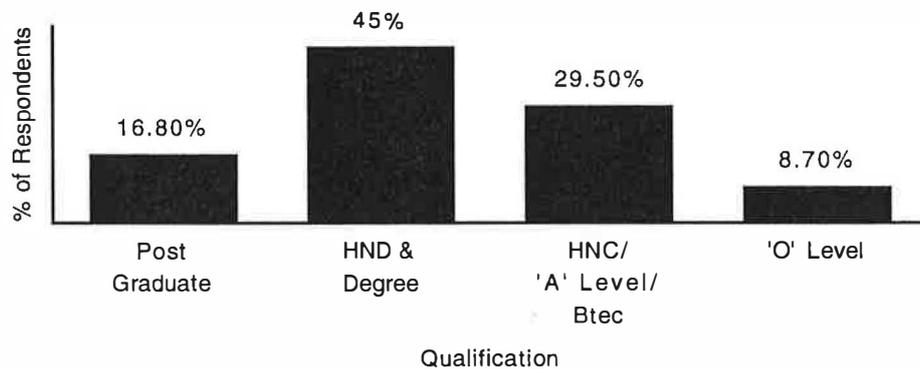
Literature within the gender and IT debate (e.g. WiT, 1989) attributes women's low entry into IT and failure to progress to decision making positions, partly to their lack of IT specific or related qualifications. In order to discern any differences between men and women, this section analyses both the educational level reached by men and women managers, and the extent to which they have gained IT related qualifications.

⁴⁴ Percentages are taken from the total number of respondents (34), who stated they had worked in other areas before entering IT.

5.4.1 Educational Level

Almost half the managers (45%) responding to the questionnaire were educated to graduate level. A small proportion of respondents (16.8%) had gained post graduate qualifications (Figure 5.8). However, no significant relationship between gender and the educational level reached by responding IT managers was found.

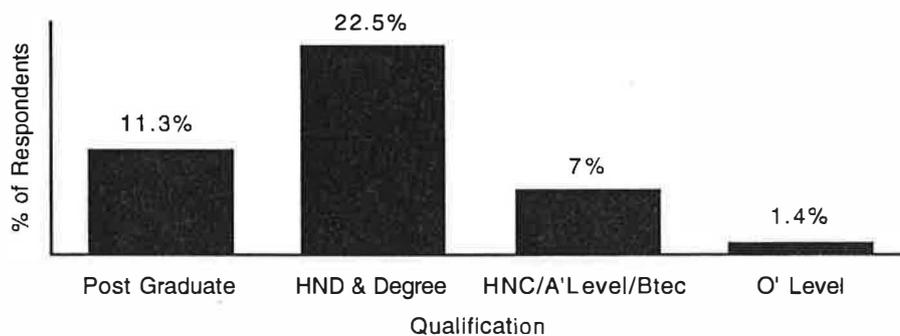
Figure 5.8 Educational Level Reached by Respondents



5.4.2 IT Related Qualifications

Over half the respondents (57.8%) had not undertaken any IT related qualifications. However, of the remaining 42.2% of managers, 33.8% had undertaken some IT related education at graduate and post-graduate level (Figure 5.9).

Figure 5.9 Respondents With IT Related Qualifications



Whilst the responding managers overall were educated to a high level, less than half had undertaken IT related courses. This was the case for both men and women managers. Thus, the results of this questionnaire suggest that it might be appropriate to question the importance placed on women gaining IT specific or relate qualifications in order to enter and succeed as managers in the IT field.

5.5 Skills

The last section showed how no significant difference was found between the IT educational experience of men and women managers within the survey. This section analyses whether the results showed any significant difference in the IT skill experience of men and women managers. In this way, possible factors influencing career progression of men and women IT managers may be highlighted.

5.5.1 Skills Experience

Managers were questioned as to which skills they had developed and used during their career. The skills included followed the British Computer Society skill classification list (British Computer Society Industry Structure Model, 1991). The list consisted of 16 separate skills covering a range of technical levels. In order to analyse the data, the skills included within the questionnaire were divided into three categories: least technical; mid technical and most technical⁴⁵.

The tables below show the percentage of total respondents with experience of each of the skills at the 3 different levels. Table 5.4 shows that lower level technical skills were mainly gained by respondents in the area of analysis design or standard setting. Less than half the sample had gained experience in customer / user support or in quality assurance.

Table 5.4 Experience of Least Technical Level IT Skills

| Skill | % of Sample With Experience of Skill |
|-------------------------|---|
| Analysis design | 77.5% |
| Customer / User Support | 45.2% |
| Quality Assurance | 45.1% |
| Standards | 60.6% |

Table 5.5 shows that a high percentage of the respondents (over 60%) had experience of 6 of the 9 mid-technical level skills. Few (22.5%) had gained software engineering skills.

Table 5.5 Experience of Mid-Technical Level Skills

| Skill | % of Sample With Experience of Skill |
|----------------------------------|---|
| Software engineering | 22.5% |
| Systems development | 78.9% |
| Network support | 38% |
| Analyst programming | 63.4% |
| Implementation | 83.1% |
| Feasibility studies | 64.8% |
| System testing | 64.8% |
| Adhering to design methodologies | 45.1% |
| Writing specifications | 77.5% |

⁴⁵ This division was drawn guided by advice provided by a representative of the British Computer Society.

Table 5.6 shows that over half the respondents had experience of 2 of the 3 highest level technical skills, with the majority (76.9%) having gained programming skills.

Table 5.6 Experience of High Technical Level Skills

| Skill | % of Sample With Experience of Skill |
|--------------------|--------------------------------------|
| System maintenance | 59.2% |
| Programming | 76.1% |
| System Programming | 39.4% |

A chi-square test showed that there was no relationship between gender and experience of any of the skills. In addition, it is interesting to note that there was no significant relationship between respondents that had gained IT related qualifications and their experience of IT skills.

5.5.2 Skills Used in Present Job Role

The managers were asked to state up to five of the most frequently used skills in their current job role. No particular order of importance was required. The range of skills stated by the respondents are categorised here into four areas: staff and project management; interpersonal; strategic, technical and analytical skills. The categories of skill and details of the specific skills contained within each, using terms written within the questionnaires by the respondents are listed below⁴⁶:

- **staff and project management:**
 - directing
 - planning
 - delegation
 - time management
 - numeracy
 - appraisals
 - coaching
 - problem solving
 - administration
 - co-ordination
 - change
 - negotiation
 - financial
 - motivation
 - verbal presentations
 - planning
 - estimating
 - control
 - management
 - written reports
 - recruitment
 - counselling

- **interpersonal:**
 - mediating
 - listening
 - flexibility
 - team building
 - communication
 - persuasion
 - diplomacy

- **strategic:**
 - vision
 - business understanding
 - forward thinking
 - understanding
 - creative
 - company direction

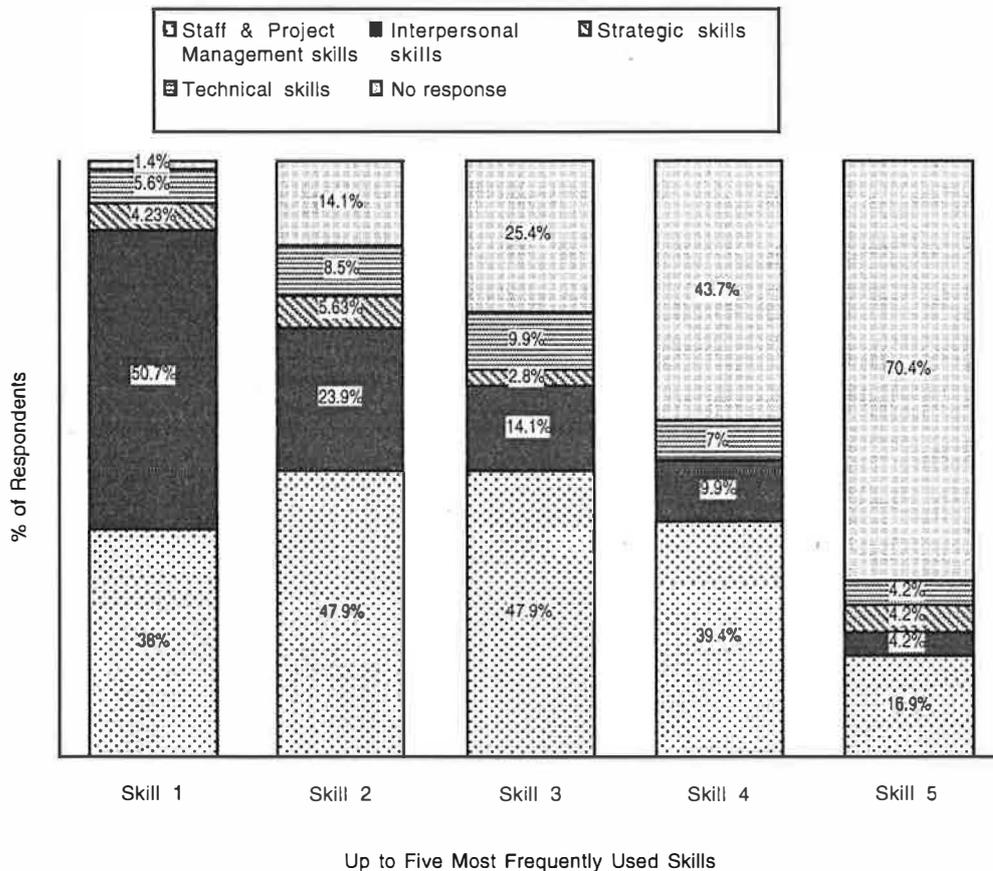
- **technical and analytical:**
 - analysis design
 - up to date technical knowledge
 - technical awareness
 - business analysis
 - technical competence
 - programming
 - systems experience

⁴⁶ It is acknowledged that the categories drawn up by the researcher are not the only ones that could have been formed. For example, interpersonal skills could have been linked with staff management skills and project management skills been listed separately. However, the distinctions were made on the basis that interpersonal skills are likely to be applied more widely within an organisation and beyond the boundaries of a manager's immediate reporting staff. The categories were limited to 4 as this is the optimal number of variables with which to conduct a chi-square test.

Figure 5.10 shows that:

- staff and project management was the most frequently referred to skill overall. Almost half the respondents (47.9%) referenced it as their second and third most frequently used skill;
- interpersonal skills were the next most used within the IT manager's current job role. Over half the respondents (50.7%) referenced it as their first most frequently used skill;
- a small percentage of managers stated they used strategic skills. Only 4.23% of respondents referenced it as their first most frequently used skill;
- despite the high level of experience responding managers had in IT skills, spread across a range of technical levels, few stated that they used IT technical skills within their current job roles (5.6% of respondents referenced it as their first most frequently used skill).

Figure 5.10 Skills Used in IT Manager's Current Job Roles



A chi-square test of the relationship between gender and each of the skills used by managers revealed that there was no significant relationship. That is, no difference was found within the survey results in the types of skills men and women managers stated they used. This result follows the assertions made within the gender and IT debate, that women are no less suited than men to IT job roles (Hammond and Holton, 1991).

As computing courses have developed, employers have increasingly made IT qualifications a necessary criteria for entry into IT management. Failing the possession of such a qualification or in addition to it, IT experience has also become a significant entry requirement. Yet, the results of this questionnaire, whilst only based on a small population, suggests that the relevance of such requirements at the IT management level might be questioned.

5.6 Tasks Associated with the IT Managerial Role

In order to assess any difference in the tasks undertaken by men and women managers, the respondents were asked to state up to five of the most commonly occurring tasks associated with their job role. There was a striking similarity between the description of tasks and skills stated by the managers (Table 5.7) to the extent that information regarding tasks provides little in the way of additional useful data.

Table 5.7 A Comparison of Tasks and Skills Referred to by IT Managers

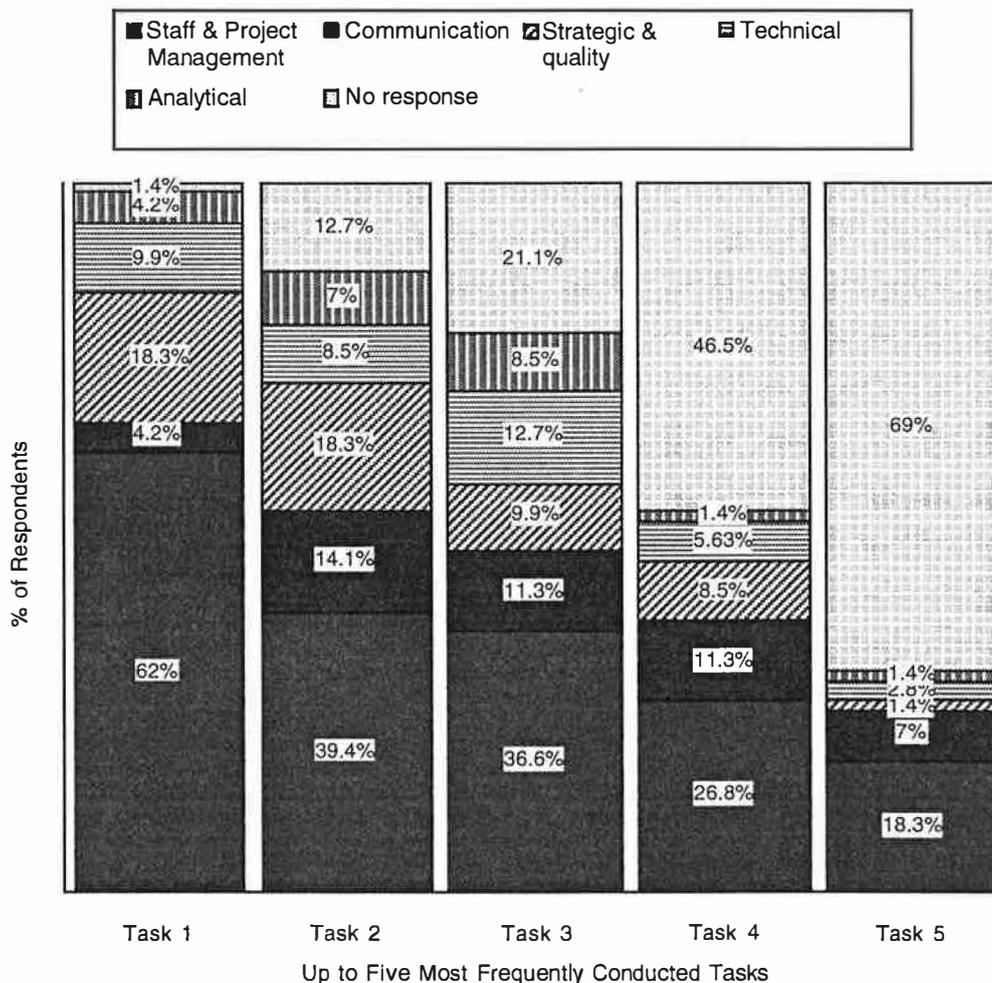
| Task Category | Specific Tasks Included Within Category | Skills | Specific Skills Included Within Category |
|------------------------|---|------------------------|--|
| Communication | user support, client liaison, user consultancy, sales, IT marketing, user training, sales and presentation, executive and director level liaison | Inter-personal | flexibility, persuasion, mediating, team building, diplomacy, listening, communication. |
| Strategic and Quality | strategic planning, strategy definition, policy making, business development, standards, documenting procedures, process improvement, quality consultancy, Total Quality programme, benchmarking, data integrity, security | Strategic | understanding of company direction, forward thinking, creative, vision, business understanding. |
| Staff and Project Mgt | project planning, progress reporting, project leadership, resource planning, estimating, project evaluation, proposal preparation, capacity planning, supervision, project implementation, network management, administration, problem solving & decision making, career development, staff assessment, staff development, financial management, budget control, cost control, financial monitoring, management accounting, IT investment control, procurement. | Staff and Project Mgt | planning, problem solving, administration, directing, estimating, planning, co-ordination, control, delegation, change management, time management, negotiation, written reports, verbal presentations, recruitment, appraisals, motivation, counselling, coaching, financial, numeracy. |
| Technical & Analytical | updating technical knowledge, evaluating new technology, technical direction, programming, hardware specification, system maintenance, system design, software development, system modelling, system testing system specifications, business analysis, system requirement documentation, feasibility studies, analysis design, data analysis. | Technical & Analytical | up to date technical knowledge, technical awareness, technical competence, programming, systems experience, business analysis, analysis design. |

Key: Mgt - management

However, as Table 5.7 shows, within this question, respondents expanded on the types of tasks they undertook which might draw on skills referred to in the previous section. For example, the table shows that communication skills may be used in tasks such as user support, client liaison and sales and presentation. In addition, further information was gained about the range of technical and analytical tasks the respondents undertook. For example, whereas within the skills section the respondents stated they had technical competence, within this section they become more specific about the current technical tasks they undertake, including tasks such as programming and system maintenance⁴⁷.

The results relating to tasks are largely consistent with the results relating to skills (Figure 5.11).

Figure 5.11 Tasks Carried Out by IT Managers in Their Current Job Roles



⁴⁷ In considering the tasks stated by the respondents, a possible weakness of this question becomes apparent. That is, it may be surprising to expect an IT manager to conduct hands-on system testing him/her self. It is perhaps more likely that they manage a team, the staff of which carry out system testing. Although the question specifically asked for "key tasks that you carry out in your present job", it is possible that the respondents included tasks they have responsibility for managing.

Figure 5.11 shows that:

- staff and project management was the most frequently referred to task overall;
- the next most commonly stated task overall, was strategic and quality tasks. However, few respondents (18.3%) referenced it as their first or second most frequently conducted task;
- only 4.2% of respondents stated communication as their first most frequently conducted task. However, it was referenced by slightly more respondents (14.1%, 11.3%, 11.3%) as their second, third and fourth most frequently conducted task;
- few respondents overall referred to technical or analytical tasks. Although technical tasks arose more frequently (9.9% in task 1) than analytical tasks (4.2% in task 1).

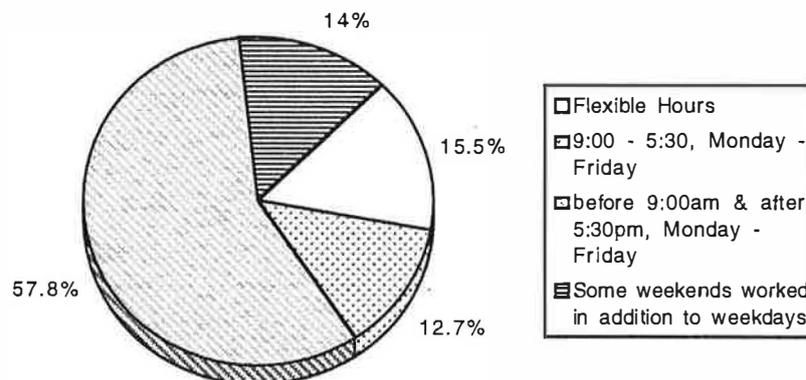
There was no significant relationship between the types of tasks stated as conducted and the gender of respondents. Whilst a relationship may have been expected, showing more senior respondents to more frequently conduct strategic tasks, the chi-square tests did not show this to be the case.

5.7. Hours

The IT managers were asked two questions relating to the number of hours they worked. The first simply asked them to state the average number of hours they worked each day. The majority of respondents (63%) worked, on average, between 7 and 10.4 hours per day. There was no significant relationship between the number of hours and gender or seniority.

The respondents were then questioned as to the degree of flexibility in the organisation of their work hours. Figure 5.12 shows that the majority of IT managers (57.8%) began work before 9am and finished after 5pm. However, work was, in general, kept between Monday and Friday, with little evidence of weekend working (14% of respondents). Only a small proportion of the sample (15.5%) worked flexible hours and no IT managers worked from home.

Figure 5.12 The Degree of Flexibility in IT Managers' Work Hours



There was no significant relationship in the nature of work hours and the gender or seniority of the respondent. In addition, although a high proportion of men and over a third of women managers appeared to have household members aged below 16, there was no significant difference in the way in which these managers' work hours were organised compared to respondents with no apparent care responsibilities.

The literature review showed how some women in management writers regard the lack of flexible work hours and flexible work organisation (e.g. home-working) available to women, as a factor preventing them entering and progressing in management roles (e.g. Venables, 1981; Davidson and Cooper, 1992). This survey may provide some support for this view as it has shown how few women are present in the sample company's IT departments and, in IT management roles, how few men and women work flexible hours.

5.8 Career Progression

A question relating to career progression was included within the questionnaire in order to complement the data collected within the case studies. Respondents were asked to rate a number of factors on a continuum, ranging from 'not very influential' (1) to 'very influential' (5) (Table 5.8). The factors chosen were identified from the literature and the pilot interviews as potential influences on successful career progression, and included:

- length of time employed within organisation;
- achievement of objectives;
- working extra hours;
- participation in outside work hours social events;
- participation in after work hours events on behalf of the organisation;
- knowing the right people.

Table 5.8 shows that:

- almost half the respondents (42.3%) regarded length of time employed within the organisation as being moderately influential;
- almost all respondents (93%) regarded achievement of objectives as very influential in the career progression process;
- working extra hours was regarded as moderately influential by over a third of the sample (39.4%);
- participation in outside work hours social events was regarded as not being very influential by over half the respondents (59.2%);
- participation in after work hours events on behalf of the organisation was regarded as moderately to not very influential by over two thirds of respondents (80.3%);

- 69% of the managers stated that knowing the right people was a moderately to very influential factor in the career progression process.

Table 5.8 Summary of Perceived Influences on Career Progression

| Factors Influencing Career Progression | Low | | Medium | | High | Null response |
|--|------------|----------|---------------|----------|-------------|----------------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Length of time employed within organisation | 14.1% | 11.3% | 42.3% | 23.9% | 5.6% | 2.8% |
| Achievement of objectives | 2.8% | 1.4% | 1.4% | 25.4% | 67.6% | 1.4% |
| Working extra hours | 14.1% | 12.7% | 39.4% | 28.2% | 2.8% | 2.8% |
| Participation in outside work hours social events | 43.7% | 15.5% | 33.8% | 4.2% | 0% | 2.8% |
| Participation in outside work hours events on behalf of the organisation | 29.6% | 14.1% | 36.6% | 16.9% | 0% | 2.8% |
| Knowing the right people | 15.5% | 12.7% | 32.4% | 25.3% | 11.3% | 2.8% |

Thus, overall the formal requirement of achieving objectives was perceived as most influential in achieving career progression by the sample. However, other less formal requirements, such as working extra hours, participation in outside work events on behalf of the organisation and knowing the right people, were also referenced by the sample as moderately influential on achieving career progression. Reference to the latter, less formal influences, which highlight the importance of visibility in the career progression process, support literature which has also identified these factors as influential (Dreher and Ash, 1990; Davidson and Cooper, 1992; Graddick, 1984).

The influence of visibility and its potential impact on the career progression of women as compared with men IT managers is explored further in each of the case studies and in Chapter 10. However, it is interesting to note here that no significant relationship was found through the chi-square test between influences on career progression and gender or seniority. That is, both men and women in the sample had similar perceptions of the relative importance of each of the factors on the career progression process.

5.9 Summary

Whilst the response rate to this questionnaire was good (60%), the overall population and therefore actual number of responses, was small (71). In addition, there were few women respondents which may have caused some of the cross tabulations to result as non-significant

when previous studies may have caused a significant relationship to have been expected. In considering the implications of the questionnaire analysis, the small number of overall responses, the few number of women respondents and its concentration in and south of Greater London, should be kept in mind. However, the results are useful in identifying areas for possible future research.

The questionnaire supports other studies (e.g. National Computing Centre, 1987; Virgo, 1994) in showing the low number of women as compared with men working as IT managers or within IT departments. This emphasises the importance of continuing work in this area to discern factors effecting the career progression of women IT managers.

Most noticeable within the results of this survey was the similarity in responses from men and women IT managers. Results and cross tabulations showed little difference in their age. They possessed similar qualifications, which, in general, did not include computing. In addition, they undertook similar tasks and skills within their job roles. However, a greater proportion of men (66%) than women (50%) in the sample had children.

Many of the men and women managers had moved into IT after having gained experience in a different area of work. It was particularly common for experience to have been gained in accounting and finance. This shows that, within this sample, many of the IT managers brought some wider business knowledge with them to their IT roles⁴⁸

Overall, the results showed the experience of male and female managers in different areas of work, the lack of their IT qualifications and the focus of their current job roles on general management skills and tasks, rather than IT technical skills and tasks. These results suggest that there might be reason to question the literature within the gender and IT debate which argues that a major reason for women not progressing to IT management positions is their lack of IT related training and skills (e.g. WiT, 1989). In addition, it questions the emphasis many employers place on managers possessing IT qualifications and experience, and reveals the importance of more general management skills in the IT management role.

No discernible difference arose between men and women IT managers as to the perceived influence of different factors on the career progression process. Both felt achieving objectives to be most influential, but also referenced influences linked to gaining visibility, such as knowing the right people to also be moderately influential. The potential influence of informal organisational factors, such as knowing the right people, on the career progression process was highlighted within both women in management and career development literature (Marshall, 1984; Acker,

⁴⁸ The importance of wider business knowledge to the IT manager is explored in greater depth within the following four case study chapters.

A similar contradiction appeared in the perceptions of men and women managers interviewed at ITHQ on the gender split within the overall Utility Co wide IT division. As 1 male senior manager, level 2, perceived:

"Maybe in other departments, gender is an issue, but not really in IT. It was evident in the equal opportunities monitoring exercise that IT was good compared with other parts of the company."

In contrast, the woman senior manager (level 1) stated:

"...there's still not many female managers."

Indeed, both she and another Regional manager described how they were often the only women in meetings. However, she added that she felt more women were progressing up the IT hierarchy than in the past. This was supported by another senior woman manager (level 2) at ITHQ who stated:

"...there's probably quite a number of female programmers and analysts.... but there's still some reluctance to promote woman at the very senior level."

Thus, the picture developed of the gender split within the IT division is that, whilst management positions remain largely male dominated, a more even spread exists at non-management levels.

The indication of a fairly equal pool of male and female prospective future IT managers and the presence of women at the most senior positions perhaps reflects the extent of the company's equal opportunity action since 1975. As the following chronology illustrates, Utility Co have undertaken consistent action to improve equal opportunities in recruitment, training and development:

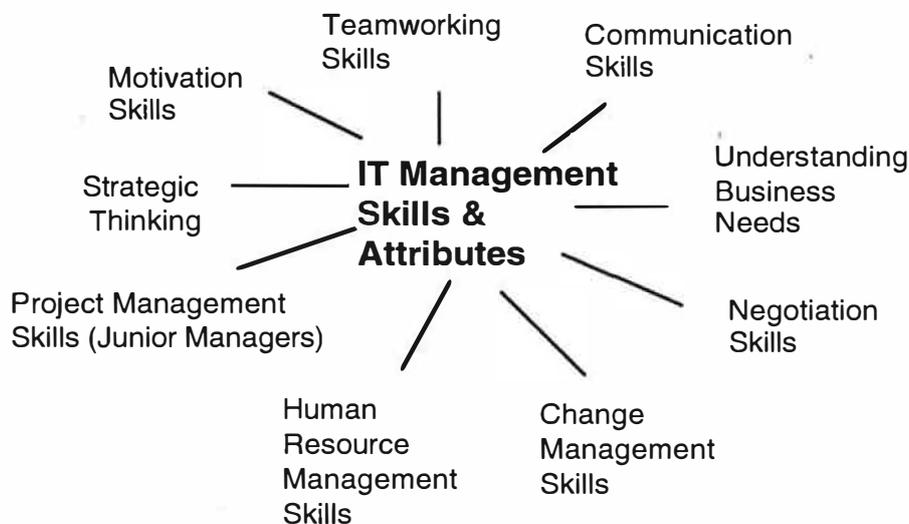
- | | |
|----------------|--|
| 1975 | Equal opportunities policy statement produced by Head Office in order to emphasise the importance of equal opportunities as an integral part of the employment process. The statement detailed the company's commitment to eliminate unfair and unlawful discrimination against all existing and potential employees. All Regions were encouraged to develop their own equal opportunities strategies and undertake local initiatives to put policy into practice. |
| 1975 - 1986 | Action took place across all Regions with regard to the employment of ethnic minorities, people with disabilities and women. |
| 1986 | A joint national agreement with the unions representing employees on equality was made at a national level. Following this, a joint management and union working party was established at the case study Region to plan and set objectives to ensure the achievement of the policy statement. |
| 1987 | The case study Region issued the <i>"We are an Equal Opportunities Employer"</i> publication to all higher managers which set out the goals of the national equal opportunity policy statement, explained its relevance and importance and provided guidelines to managers for its achievement. Dissemination of the publication was accompanied by a one day training seminar for all senior managers. |

- 1988 The Region launched a Skills Retention Programme to improve the retention of skills and experience within the company, especially amongst women. A review of the Region's equal opportunities approach was undertaken jointly with the Department of Employment. A women's returners scheme to encourage their return to the Region after childbirth was launched and child care assistance through vouchers was started.
- 1989 A women's network group was launched to link women throughout the Region and provide mutual support and encouragement.
- 1990 An annual monitoring of the Region to its equal opportunities objectives was launched.
- 1991 A commitment to Opportunity 2000, the Government supported initiative run by Business in the Community, which aims to improve the number of women in decision making roles in organisation by the year 2000.

7.3 Skills and Attributes Sought In IT Managers

Given the period of change the IT division was undergoing, the Personnel department had reviewed the skills and attributes required by IT managers to facilitate their staff through the re-organisation. Figure 7.4 presents the skills and shows the emphasis Headquarters' Personnel were placing on change management, human resource management and motivation skills.

Figure 7.4 Skills and Attributes Sought in IT Managers by Utility Co



It is notable that without the skills of understanding business needs, Figure 7.4 could possibly be applied to management positions anywhere in an organisation. That is, Utility Co do not place an emphasis on the need for technical skills in IT management positions. Indeed, a representative of the Personnel Department explained that senior IT managers in particular should no longer be concerned with technical detail in their daily roles. Technical issues would become a concern for

them only at a strategic level. However, they noted that junior managers may well be more involved with technically detailed issues in their roles as project managers.

7.4 Interview Sample Profile

A total of 5 men and 5 women IT managers were interviewed. In addition, a representative from Personnel responsible for IT staff was interviewed in order to gain information about the company's approach to career progression, equal opportunities and skills sought in IT managers (referred to hereafter as IT Personnel)⁵³.

The IT managers interviewed represented all but the topmost level (Director) in the IT management hierarchy. They were also drawn from across the 3 IT departments (see Figure 7.2). An equal number of interviews were conducted at the Region and ITHQ (Table 7.1).

Table 7.1 Utility Co Sample Profile

| Code | M/F | H/L | Level of Education | IT Education | Family Status | Age |
|------|-----|-----|--------------------|------------------------------------|----------------------|-----|
| 1 | F | 5 | Degree | TOPS Government re-training course | single, no children | 33 |
| 2 | F | 5 | O'Level | None | married, 2 children | 33 |
| 3 | F | 4 | Degree | Maths with Computing Degree | single, no children | 33 |
| 4 | F | 4 | Degree | HNC in computing | married, no children | 35 |
| 5 | M | 4 | O'Level | None | married, 4 children | 40 |
| 6 | M | 2 | Degree | None | married, 2 children | 40 |
| 7 | M | 2 | Degree | None | married, 1 child | 35 |
| 8 | M | 3 | Degree | None | married, 2 children | 46 |
| 9 | M | 2 | PhD | PhD included computing | married, 2 children | 45 |
| 10 | F | 2 | O'Level | None | married, no children | 45 |

Key: M = male F = female H/L = hierarchical level

Table 7.1 shows that:

- the men within the sample were drawn from more senior management positions and, with the exception of 1 woman, the other women managers were drawn from middle and junior management positions;

⁵³ The IT managers interviewed were selected by Utility Co's Personnel Department.

- the women managers overall were on average 6 years younger (35.8) than the men in the sample (41.2);
- whilst all the men in the sample were married with at least 2 children, only 1 woman fell into this category. Two others were married with no children and 2 more were single without children. Although the women were younger than the men, which may account for their family status, it is also possible that they felt unable or did not wish to combine starting a family with progressing their careers. This possibility is addressed again later in section 7.6 when the career progression process is discussed.
- men and women in the sample were educated to a similar level (3 men and 3 women held degrees). Only one male manager held a postgraduate qualification (PhD). However, whilst 3 women had gained computing qualifications, only 1 man, in undertaking a PhD, had gained experience of any formal computing education.

Table 7.1 illustrates that only 1 woman (code 1) had undertaken computing education (the Government TOPS retraining course) in order to enter the field of IT. The other managers, during their education, had not yet decided which career area they would enter. Indeed, as Table 7.2 illustrates, over half the sample (4 women and 3 men) had started their careers in other areas before moving into IT.

Table 7.2 Career Path Prior to IT

| Code | M/F | H/L | Career Path Prior to IT Entry | Date |
|------|-----|-----|---|----------------------------|
| 1 | F | 5 | Teacher | 1981 - 1985 |
| 2 | F | 5 | Customer Service (Utility Co) | 1978 - 1979 |
| 3 | F | 4 | None | |
| 4 | F | 4 | Scientific Officer Researcher (Utility Co R&D) | 1977 - 1979 1979 - 1987 |
| 5 | M | 4 | Customer Service (Utility Co) | 1969 - 1980 |
| 6 | M | 2 | Customer Service (Utility Co) | 1974 - 1983 |
| 7 | M | 2 | None | |
| 8 | M | 3 | None | |
| 9 | M | 2 | Operational Researcher Business Analyst (Utility Co) | 1968 - 1971 1971 - 1985 |
| 10 | F | 2 | Bank Clerk | 1963 - 1966 |

Key: M = male F = female H/L = hierarchical level

It is interesting to note that 5 of the sample (codes 2, 4, 5, 6 & 9) had moved into IT from other departments within Utility Co, 3 from positions in Customer Service, 1 from Research and Development and another from being a business analyst. Only 1 junior woman manager (code 2) and 1 senior male manager (code 6) explained how they had taken technical tests in order to move into IT. However, these, like the other managers, had moved into IT after gaining experience with computers in their previous job roles. As 2 managers explained:

"I joined here in the marketing department and worked in the marketing department for 10 years. ...At the time we were introducing the new customer services computer system, it was being introduced in my office and I'm told by the guy who became my boss that I was very vociferous with my condemnation of it, how they were putting it in...and he collared me one night when we were playing squash and said, you can come and work for me. So I went on secondment to computer services for a year and at the end of the year I went back to my office and then a job came up in IT as an analyst and when you're reading though the job description at all the qualifications required I thought, I can do that job because I've just been doing that job but I don't qualify in any of those ways. So I phoned up the guy who was the head of the computing department and said look, I'm thinking of applying for this job but I don't have any of the qualifications, should I apply?...and he said, look you know I can't answer that but you've got a hell of a lot of business knowledge and that's what we're lacking in the department, you'll be considered along with everyone else...So four interviews later, because they put me through two technical interviews...I got the job ."
(code 6, male, level 2)

"I worked for (another Region) at the time and we were trying out computer technology and we had half the office kitted out with ICL terminals and half with IBM kit and the system was absolutely disastrous, going back to 1977/78. The system gradually improved, we kept telling computer services what we wanted and in the end I worked out that if you can't beat 'em and I worked out that I couldn't beat them, so I joined them. After that I spent about a year and a half putting this system in customer services throughout (another Region) with an implementation team, I was working for marketing at the time and then a job came up in Computer Services which was to implement all systems for all Directorates, so I moved across into development planning." (code 5, male, level 4)

Having progressed in other parts of the company, Table 7.3 shows how:

- 2 men and 1 woman (codes 4, 5 & 9) moved directly into management positions within IT, without gaining analyst or programming experience;
- one other man (code 8), moved directly into a management position, having progressed in IT in a previous company;
- only the women within the sample (codes 1, 2, 3 & 10) had gained any technical programming experience. Two of these women, who were the youngest in the sample (aged 33), were in junior management positions. The other 2 (codes 3 & 10), had progressed to middle and senior management positions.
- the 2 remaining managers (codes 6 & 7) had gained experience as systems analysts before reaching IT management positions.

Thus, overall within the sample, very few of the managers appeared to have come from technical backgrounds. This issue will be discussed again later in the sections on skills and career progression (sections 7.5 and 7.6).

Table 7.3

Utility Co Sample IT Managers' IT Career Path

| Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------|---------------------------------|--|--|---|---|--|---|---|-------------------------------|---|
| M/F | F | F | F | F | M | M | M | M | M | F |
| H/L | 5 | 5 | 4 | 4 | 4 | 2 | 2 | 3 | 2 | 2 |
| Co. 1 | | | trainee analyst programmer 1981 - 1983 | | | | | trainee comp op -> comp op -> senior comp op-> operations manager '65-'71 | | trainee programmer (1966 - 1968) |
| | | | | | | | | comp operations manager '71-'79 | | |
| Utility Co | trainee programmer 1980 - 1982 | trainee programmer 1980 - 1981 | analyst 1 1983 - 1984 | senior project leader (level 5) 1987 - 1989 | project leader (level 5) 1980 - 1983 | analyst 1983 - 1984 | trainee systems analyst 1979 - 1980 | comp operations manager (level 4) '79- '84 | manager (level 3) 1985 - 1991 | programmer 1968 - 1969 |
| | programmer 1982 - 1985 | change control support officer 1981 - 1984 | analyst 2 1984 - 1985 | junior manager (level 5) 1989 - 1991 | network planning manager (level 5) '83 - '87 | principle analyst 1984 - 1985 | systems analyst 1980 - 1982 | information services manager (level 4) '84 - '88 | manager (level 2) 1991 - | senior programmer 1969 - 1972 |
| | senior programmer 1985 - 1986 | help desk leader 1984 - 1987 | senior systems analyst (level 5) 1985 - 1989 | technical services manager (level 4) 1991 - | information services manager (level 4) 1987 - | project controller (level 5) 1985 - 1987 | senior database designer (level 5) 1982 - 1984 | head of IT (level 3) 1988 - 991 | | business analyst 1972 - 1974 |
| | project leader (level 5) 1986 - | maternity leave 1987 | system manager (level 4) 1989 - 1991 | | | project manager (level 4) 1987 - 1988 | project manager (level 4) 1984 - 1986 | IT business manager (information services) (level 3) '91 - | | senior project leader (level 5) 1974 - 1980 |
| | | help desk leader 1987 - 1988 | account manager (level 4) 1991 - | | | information services manager (level 3) 1988 - 1989 | manager (level 3) 1986 - 1989 | | | manager (level 4) 1980 - 1986 |
| | | support manager (level 5) 1988 - 1990 | | | | systems development manager (level 3) 1989 - 1991 | data implementation manager (IBM) (level 2) '89 - | | | senior manager (level 3) 1986 - 1991 |
| | | maternity leave 1990 | | | | head of systems development (level 2) '91 - | | | | senior manager (level 2) '91 - |
| | | operations manager (level 5) '90 - | | | | | | | | |

Key: comp op - computer operator M = Male F = female H/L = hierarchical level

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7.5 IT Managers' Skills and Attributes

Table 7.4 compares the skills the sample managers described they used in their everyday roles with those sought by IT Personnel. Whilst this analysis cannot be viewed as exhaustive, as it is unlikely that the managers referred to all the skills they used, Table 7.4 does show that a good match arose between the 2 sets of skills. Only change management and project management skills were not specifically mentioned by the sample.

Table 7.4 Skills Used by IT Managers Compared With Those Sought by IT Personnel

| Skills Sought by IT Personnel | | Skills Used by IT Managers | Code | Male/Female | H/L | Location |
|----------------------------------|----|--------------------------------------|------------------|-----------------|-----------------|------------------------------|
| Understanding business needs | -> | Business understanding | 2,3,4,8,10 | F,F,F,M,F | 5,4,4,3,2 | R,R,R,R,ITHQ |
| Negotiation skills | -> | Negotiation skills | 3,5,8,10 | F,M,M,F | 4,4,3,2 | R,R,R,ITHQ |
| Human resource management skills | -> | Staff management skills | 1,2,4,7,8,9,10 | F,F,F,M,M,M,F | 5,5,4,2,3,2,2 | ITHQ,R,R,ITHQ R,ITHQ,ITHQ |
| Strategic thinking | -> | Strategic thinking | 3,4,6,8,10 | F,F,M,M,F | 4,4,2,3,2 | R,R,ITHQ,R,ITHQ |
| Team working skills | -> | Team working skills | 7 | M | 2 | ITHQ |
| Motivation skills | -> | Motivating skills | 1,4,5,6,7 | F,F,M,M,M | 5,4,4,2,2 | R,R,R,ITHQ,ITHQ |
| Communication skills | -> | Communication skills | 2,3,4,5,6,7,8,10 | F,F,F,M,M,M,M,F | 5,4,4,4,2,2,3,2 | R,R,R,R,ITHQ ITHQ,R,ITHQ |
| Change management skills | | | | | | |
| Project management skills | | | | | | |
| | | Customer focus & satisfaction skills | 3,6,8 | F,M,M | 4,2,3 | R,ITHQ,R |
| | | Technical skills | 10 | F | 2 | ITHQ |
| | | Co-ordinating disparate groups | 6,7,9 | M,M,M | 2,2,2 | ITHQ,ITHQ,ITHQ |

Key: M = male F = female H/L = hierarchical level R = Region

Notably, all the managers described at least one skill linked with managing staff (staff management skills, motivating skills and co-ordinating disparate groups). Seven managers spoke about general staff management skills, including those connected with conducting appraisals and managing staff's career development. In line with the uncertain period of change, 5 managers spoke about the importance of skills used in motivating staff. Perhaps due to their job roles, which involved management of staff across the Regions, 3 managers, based at ITHQ described the need for skills in managing staff across disparate sites (codes 6, 7 & 9). However, under the overall banner of staff management skills, only 1 senior male manager (code 7) placed importance on team working skills.

Although in theory ITHQ had a stronger strategic focus in its outlook than the Region, only 2 ITHQ managers (codes 6 & 10), but 3 Regional managers (codes 3, 4 & 8) described the need for

strategic skills. Similarly, more Regional than ITHQ managers referred to negotiation, business, communication and customer satisfaction skills. Reference to these skills by the Regional managers perhaps reflects the business environment in which they were operating. The Regional managers described how they had to manage the demands of Regional customers in the short term, without yet fully knowing the long term direction of IT. As 1 manager explained:

"We are about providing tactical solutions, we are not about providing long term solutions, that's the job of ITHQ...The (IT) strategy has been going for the best part of two years now. In that two years I think we have lost sight of giving the business anything. The business is becoming disenchanted...people become very unhappy when you don't give them short term things." (code 8, male, level 2)

It is interesting to note that just 1 woman manager from the sample who progressed from a technical programming background, referred to the need and use of technical skills in her job role (code 10). The skills she described were focused on planning the strategic technical direction of Utility Co and managing technical staff:

"It is a technical area, so I do have to have a broad understanding of the technical infrastructure within (Utility Co).....We're setting the technical direction for the company...so you have to have a knowledge of where the future of technology s going and you have to be able to manage the people that have the technical skills." (code 10, female, level 2)

Given the lack of emphasis placed on technical skills by IT Personnel and the sample managers, interviewees were questioned more closely about their perceived need for these skills in their job role. Only 4 managers overall (3 women and 1 man) felt a technical background and skills were important in effectively carrying out their role (codes 1, 4, 8 & 10). All of these managers had developed from either a programming, computer operator or scientific research and development background. The managers felt technical skills and background were important in being able to manage and understand technical staff and successfully manage technical projects. For example, as the following managers explained:

"But I do like the technical side which is why I like to be a technical manager, because I can listen to someone getting excited about the technical bits and know what they're doing it for and get them to do it in the right direction and hopefully help them to understand when enough is enough."
(code 4, female, level 4)

"I think it's very important, because at least people can come and talk to me, they know where I've come from and they can come and talk to me on a technical level...then we can sit down and resolve issues and because of my technical background, I know what's feasible and how we can manipulate various things, so I find that quite useful and I'm quite comfortable with that. I think that's probably helped the business, because we've had some experiences where we've had some managers who have come in from a non-technical background and they're not aware technically what's going on around them. It makes it quite difficult to steer a project to a particular place

... I also know whether people are telling me things that are sensible or not. You can still be a very good man manager but not be aware on the project which has still got quite a bit of technical background within it.. If you're not aware of what's happening from that point of view it can be quite hard to manage." (code 1, female, level 5)

This section has shown how the overriding skills the managers appeared to be concerned with were related to managing and motivating staff. This focus possibly reflects the changing environment in which the managers were operating. It should also be noted that neither the managers interviewed nor IT Personnel placed a strong emphasis on the need for technical skills at the management level. Indeed, as the previous section has shown, 3 of the sample managers moved into IT management positions without having gained any technical programming or analyst experience. The 4 managers who felt technical skills and background were important for the IT management role, had themselves progressed from a technical background, and did not actually refer to their direct use in their present role. Instead, they described how the background knowledge helped them conduct their jobs effectively. The importance of technical skills in career progression will also be considered in the following section.

7.6 Career Progression

This section compares the formal approach to career progression as described by IT Personnel with the men and women sample managers' experiences and perceptions of the process in practice. It considers the procedures IT managers follow, as well as the skills and attributes (characteristics) important to exhibit in career progression. The way in which the sample managers gained information about progression procedures and characteristics and the effect this had on their future career development is addressed. The role of the equal opportunities policy in the career progression process, as perceived by the sample managers is also explored.

7.6.1 Formal Career Progression Procedures and Characteristics⁵⁴

Two career paths exist within IT at the Region and ITHQ, one for technical and another for management staff. The technical career ladder stops at the start of the management grades, where the focus is on people, strategic and business skills rather than technical skills. IT managers progress by applying for a higher graded post. Details of vacant IT posts are circulated to all management staff on a monthly basis. IT managers are appraised annually on their performance against the previous year's objectives agreed with an individual's immediate manager. However the results of appraisals are not referenced by recruiters when making new appointments.

⁵⁴ Information contained within this section is drawn from data gathered from an interview held with a representative of IT Personnel as well as personnel policy documentation provided by Utility Co.

Due to the shift to centralisation of IT within Utility Co, internal recruitment procedures were under review at the time of the case study. IT Personnel explained the need to make the recruitment process more objective and less subject to bias arising from the recruiting manager knowing the individual and work of the applicant. That is, they did not wish to advantage an applicant who had worked at ITHQ on secondment over an applicant from a Region who had not. Similarly, due to the process of change, IT Personnel felt that whilst they aimed to establish a set of skills and attributes (career progression characteristics) for recruiting and developing IT managers at ITHQ, this task had not yet been completed. In the past, a specific set of characteristics had not been established for progressing IT managers. Instead, interviews were based on the skill requirements of the vacant post. However, IT Personnel stressed that all IT managers were expected to exhibit the generic skills sought at management levels (see Figure 7.4).

7.6.2 IT Managers' Interpretations and Experiences of Career Progression Procedures

Whilst each of the managers explained how progression was achieved by applying for a higher level post in Utility Co, they added that 4 other procedures were important to follow in the career progression process (Table 7.5).

Table 7.5 Perceived Career Progression Procedures

| Perceived Career Progression Procedures | Code | Male/ Female | Hierarchical Level |
|--|------------------|-----------------|--------------------|
| Gaining a wide experience within the organisation | 4,10 | F,F | 4,2 |
| Networking | 2,3,4,5,6,10 | F,F,F,M,M,F | 5,4,4,4,2,2 |
| Being known by and getting on with senior managers | 1,2,3,5,6,7,8,10 | F,F,F,M,M,M,M,F | 5,5,4,4,2,2,3,2 |
| Be in the right place at the right time | 1 | F | 5 |

Key: M = male F = female

Table 7.5 illustrates how 1 junior manager (code 1) stressed the subjectivity of the career progression process by stating her view that progression was influenced by being in *"the right place at the right time."* Two women (codes 4 & 10) felt that gaining wide experience from different divisions throughout the company was an important procedure to follow:

"Ability, getting exposure, the other one is the willingness to take on new and different things, if you keep yourself very narrow in your outlook that isn't going to help you progress to the top, you do need experience from different areas and you need to be willing to take on new challenges."
(code 10, female, level 2)

There was greater consensus amongst the managers as regards the importance of networking and being known by, and getting on with, senior managers. Six managers, (4 women and 2

men), stressed the role of networking. Networking, as the following extracts from statements illustrates, was defined by the sample as knowing people across the organisation, and being known by them, particularly those in senior positions. Having a range of people from whom you can gain information about other people or events was also defined as networking:

"Get known by people in authority." (code 3, female, level 4)

"I know a lot of people and a lot of people know me." (code 6, male, level 2)

"Having identified where they want to get to, they identify the people that can help them get there." (code 6, male, level 2)

"I've got more contacts in this company than virtually anybody else, 'cause a) I've moved around a bit and I've always kept in touch with people and when I worked in the Directorate I knew people from all around the Regions and I am quite gregarious and I like people and I find it easy and I've always found that people are willing to give you information so I've always rung people up and said I don't know about this, what do you know about this and people are always happy to tell you. I learnt fairly early on that understanding what's going on around you and understanding the political situation is what helps you move on and you only get that by listening to other people's views and talking to people." (code 4, female, level 4)

Despite the consensus about these procedures amongst the sample, differences were found amongst the managers in their reaction to the perception of the importance of networking and being known by and getting on with senior managers, and the way in which they followed the perceived procedures.

Only 1 woman junior manager (code 1), was conscious that networking took place, but did not appear to feel it was important in the career progression process. Over half of the managers, 4 women and 4 men (codes 2, 3, 4, 5, 7, 8, 9, 10) who stressed the link between the 2 procedures and career progression felt that they networked easily:

"I definitely do it, not consciously, I don't think I'm very political, but I think I have a large network, a) because of the length of time I've been here and because of the projects I've got involved in and because I've got a lot of friends in other departments. I don't think I'm political at all.....I think it helps at times...When you talk about networking for instance, within (ITHQ) , there are a number of people within this Region that have made it their business to get known by the people in authority there. I am well known here but I am not well known at (ITHQ)at all....I think the people that have made an effort are consequently quite successful.." (code 3, female, level 4)

"I haven't consciously made a decision to network, but it happens and that's a very strong influence on achieving better jobs." (code 2, female, level 5)

One of these managers (code 8) explained how he made a conscious effort to network:

"Two or three times a week I have lunch with the Regional management committee....that network is a very good one...In fact that is why I lunch with the Regional management committee, not because I like lunching with those guys, but because it's a great information tool." (code 8, male, level 3)

One senior male manager (code 6) who acknowledged the importance of networking did not find it as easy as the previous managers to participate in the process. However, he felt that having worked within the company for a number of years, he had grown a network naturally:

"There are people who concentrate on networking, I know them and having identified where they want to get to, they identify people that can help them get there. I tend not to do that, I tend to concentrate on the job that someone is asking me to do and do that job to the best of my ability and I therefore assume if I'm doing a good job here, if other jobs come up....Because I've been around (Utility Co) a long time, I know a lot of people and a lot of people know me. So I assume when a job comes up, my name is put on the list of people to go and do that job." (code 6, male, level 2)

One women manager (4) described the way in which women in IT networked with each other which she perceived was different from the way men networked. She stated how she only felt confident talking to men about technical and not personal issues. She believed the different approaches had been influenced by the growth of the company's formal women's network scheme:

"It's very general, although the women's network has a special place still because they're the people I go to when I feel particularly under pressure with work. I find it very hard to admit that I'm struggling to another man. I'm always worried that if you go to another man with a problem, unless you know them very well, there'll be this slight female-male divide, that this is a problem that wouldn't effect them maybe and they'll think, she's being woman about this, so although we may talk about technical problems, I won't talk about personal things and I always go to the women's network for that." (code 4, female, level 4)

This manager believed that men networked only on a business rather than personal level. She felt that in the current pressurised climate of change that men would benefit from the more personal networking which she felt women enjoy.

Conversely, another woman manager (2) felt she had a different networking relationship with the men than they had with each other. She felt this was because she was a woman and because men did not perceive her as much of a threat as they did each other:

"There's probably about 12 people I'd talk to on an intimate basis and they're in this and other Regions.. But I do think the men seem to be more competitive with each other, where as they would be more honest with me, I think. I think that the fact that I'm quite a good communicator, they have less barriers with me because I'm less of a threat, even though I may be the same grade as them, they don't perceive me as a threat in the same way." (code 2, female, level 5)

Overall, it should be noted that women referred to more than double the number of career progression procedures perceived as important as men. In addition, the women IT managers showed that, not only were they aware of the importance of networking, but that they did not find difficulty in participating within the network. This result may have been influenced by two factors. Firstly, women and men within the sample had worked within the company for a similar number of years (average of 15.2 years for women and 18.6 years for men managers). Secondly, the role of the formal women's network may have had some influence in educating the women managers in the importance and skills of networking.

7.6.3 IT Managers' Interpretations and Perceptions of Career Progression Characteristics

The skills perceived by the sample managers as important to display in progressing their careers were quite different from those formally sought by IT Personnel (Table 7.6). Only 2 skills stated by IT Personnel as important for IT managers to progress (communication and understanding business needs) were also referred to by the sample. However, it should be noted that these were skills most frequently mentioned by the sample.

Table 7.6 Career Progression Characteristics Perceived as Important by IT Managers

| IT Personnel Stated Career Progression Characteristics | | Career Progression Characteristics Referred to by IT Managers | Code | Male/Female | H/L |
|--|----|---|--------------|--------------|---------------|
| | | General all round ability | 8,10 | M, F | 3,2 |
| | | Proven technical ability | 3 | F | 4 |
| Communication skills | -> | Communication & interpersonal skills | 1,2,3 6,8 | F,F,F M,M | 5,5,4, 2,3 |
| Understanding business needs | -> | Understand the business | 1,5,7 | F,M,M | 5,4,2 |
| | | Be flexible | 4,9 | F,M | 4,2 |
| | | Adhere to traditional company values | 4,5,9 | F,M,M | 4,4,2 |
| | | Be political | 1,3 | F,F | 5,4 |
| Team working skills | | | | | |
| Negotiation skills | | | | | |
| Change management skills | | | | | |
| Human resource management skills | | | | | |
| Project management skills | | | | | |
| Strategic thinking skills | | | | | |
| Motivation skills | | | | | |

Key: M = male F = Female H/L = Hierarchical Level

In total, 7 characteristics were deemed important for career progression by the managers. In general, however, only 1 or 2 managers cited the same characteristic. Also, managers spoke of, at most 3, but more often only 1 or 2 different career progression characteristics.

All round ability was cited by 1 man and 1 woman as necessary characteristics for career progression. Only 1 female manager (code 3) felt proven technical ability was important. The lack of importance placed on this element is in line with the lack of technical experience amongst the group of managers. Section 7.5 also showed how only 1 manager stated that they currently used technical skills within their job role.

Interpersonal and communication skills were referenced by the greatest number of managers (5). Two men (codes 5 & 7) and 1 woman (code 1) felt that it was important to understand the business. Two managers (codes 4 & 9) believed it was necessary for an IT manager to be flexible, a quality they perceived was increasingly required within the job role. A woman manager (code 4), however, expressed anxiety at the importance of this criteria. She felt that it was a factor that could potentially inhibit many women with families from progressing managerial careers:

"I haven't got a family...I'm lucky, I've seen some of my female friends really struggling...There's a certain expectation to be able to make progress you have to be able to do more than your standard 37 hours, you have to go away for meetings. You have to be able to share in those things and if you've got a young family that's almost impossible to do. I've seen it, unless you've got an incredibly good supportive network around you it's very difficult to do those things and that effects your career progression , I've seen it happen." (code 4, female, level 4)

Two men (codes 5 & 9) and 1 woman (code 4) felt it was important to be aware of and adhere to the company values in order to progress. As the following manager explains, they felt that recruiters looked for the company's traditional managerial traits when appointing:

"They, the managers, who are recruiting you will be looking for the traditional (Utility Co) values....They're very traditional managers, what we understand of traditional characteristics of (Utility Co) Managers...one tends to be not too imaginative and avant garde in your approach to management, tend to be a little bit on the critical side, must tow the (company) party line and must accept the policy of (Utility Co)." (code 4, female, level 4)

Finally, 2 women (codes 1 & 3), a junior and middle manager stated they felt being political was a significant career progression characteristic. The junior manager, however, felt uncomfortable with this characteristic. She made the decision not to participate in company politics despite her perception of its importance:

"I think you may find there's a little bit of politics involved, but I don't get involved with the politics, I may be an exception to the rule. I'm a doer, to a certain extent I've got to get involved with some politics, but I try not to get involved in it if you see what I mean, I try and stay clear. I know there are some people in the company who will hop skip and jump around in order to get themselves seen, that's one way of getting yourself recognised. My way and there's a fair few of us, is that you hope people recognise your ability and how you've got to where you are is based on your ability rather than who you're seen with and whether you look right. " (code 1, female, level 5)

Most managers placed greatest emphasis on the importance of communication and interpersonal skills as necessary skills for career progression. The junior managers seemed unaware of the importance perceived by other managers of adhering to traditional company values and being flexible. Although knowledge of informal career progression characteristics appeared to be less consistent between different levels of managers than by gender, it remains that the junior managers were women.

7.6.4 Development of Awareness of Career Progression Procedures and Characteristics

The managers were asked to describe how they had become aware of the career progression characteristics and procedures. Notably, none of the male managers were able to recall or describe how their awareness had developed. Awareness of the career progression process appeared more as part of male manager's tacit knowledge. The apparent inability of male managers to describe their learning process contrasted with women manager's responses. Whether described as a natural accumulation of knowledge over time or a specific incident which triggered learning, women were able to describe in detail how they became aware of career progression procedures and characteristics.

Two women managers (codes 3 & 10) stated that gaining knowledge of the career progression process came as a natural part of their development through the organisation. The 3 other woman manager's (codes 2, 4 & 6) learning process developed with the help of a sympathetic senior male manager. One of these managers described how knowledge gained through the mentoring relationship with her manager gave her the confidence to develop her career:

"I was lucky in my early days I had a manager who was excellent and helped me to develop my career and I think that's very important.....He just took a big interest in what I was doing. ... He was very good in developing me in terms of giving me the extra responsibility that I wanted, trusting me to go out and talk to senior managers, make mistakes and find my way, come back and talk about what happened, so he was very very good for me, always encouraged me to stretch myself. He was a very political animal and again we used to sit down and talk about the politics of situations which helped me to learn about it..... I probably might never have developed as much, I think I might never have realised my abilities, or it might have taken me a lot longer."

(code 4, female, level 4)

Being given an opportunity by a manager to move into a more senior position was described by another manager (code 2) as the beginning of a process which gave her the confidence to develop her career. Interestingly, this manager's confidence was further developed when she started a family. She described how returning to work after maternity leave gave her the opportunity to change her image and approach to work. She believed her colleagues and managers perceived her differently following her return. This manager also felt that her confidence had been lifted by the fact that with children and a career, her life was more complete:

".. it's two years in July - was really a turning point for me.Career, focus, and where I wanted to be; and also people perceived me differently.Well, because I'd been away it gave me an advantage because you can come back and sort of re-invent yourself, and ... and I think that's what I did really, I got slimmer, and I sort of got more, I got my act together, in lots and lots of ways ... it's very very complicated, ...but I think, perhaps having had my second child, I felt that my family was complete and I didn't have to have any more babies, I don't mean that consciously but that might have had something to do with it and I felt I could concentrate...I wouldn't say I came back with any great ambitions but I was able to be more concise, apply myself...You have to find the rhythm of being back at work...I've always enjoyed working here and I felt almost when I walked through the door that I'd come back home, I found it very fulfilling but in a different way, this fulfils a different side of my life." (code 2, female, level 5)

Within the sample, a difference appeared in the way in which men and women learnt about the career progression process. Men were unable to describe their learning process. This implies that it was perhaps less structured than the women's who relied on senior managers for guidance.

7.6.5 The Effect of Perceptions of Career Progression Procedures and Characteristics on IT Managers' Career Progression

The description provided by the women managers of how they learnt about the career progression process also indicated that the women made choices relating to how they decided to behave and act within Utility Co in order to progress their careers. Similar indications did not arise from interviews held with men IT managers.

In addition to the 2 women managers (codes 3 & 10) who felt they had gained knowledge about career progression as a natural part of their development through the organisation, another women manager (code 4) appeared to accept the perceived demands made by the career progression process and act accordingly. However, she stated that, as a woman working within the framework of the perceived career progression process, she was required to compromise between work and family. Whilst not questioning its legitimacy, she felt unable to make a compromise. Instead she stated that she had chosen career over family:

"If you work part-time, you work at your grade, but you can't take on the full role that you've taken, so people tend to get put into the more mundane areas of work, because that's the only way you can work part-time. So again, that has an impact on how fast you can progress, it's almost inevitable. I've talked about it quite a lot with friends that have been in this situation and it's almost the sort of thing that you have to accept. I have a couple of friends that can't accept it that are very bitter and get very upset about it. But from my own personal perspective, I think it's something you have to accept, you have to reach a compromise with yourself, that you can't do everything 100% anymore. You have to make that decision and what normally happens is that for several years you feel dissatisfied because you don't feel you're doing either job properly. They're torn between the two and I guess that's why I've never had children, because I've never been able to make that compromise." (code 4, female, level 4)

The 2 remaining women managers described their feelings which can be interpreted as rejecting (code 1) and compromising (code 2) with the perceived demands of the career progression process. Rejection was interpreted from 1 woman manager's description of how she did not wish to become involved with company politics. As the following statement illustrates, this manager felt that some of the perceived demands of the procedures and characteristics overlooked an individual's ability and that she preferred to progress based on her ability to do the job, rather than in playing politics or networking:

"I think you may find there's a little bit of politics involved, but I don't get involved with the politics, I may be an exception to the rule. I'm a doer, to a certain extent I've got to get involved with some politics, but I try not to get involved in it if you see what I mean, I try and stay clear. I know there are some people in the company who will hop skip and jump around in order to get themselves seen, that's one way of getting yourself recognised, my way and there's a fair few of us, is that you hope people recognise your ability and how you've got to where you are is based on your ability rather than who you're seen with and whether you look right. It does happen, I don't think you can avoid that to a certain extent. I know when I go to meetings I see people and think, how did they get there, they haven't had to go through the things I've been through and that's a bit wrong but I suppose if I was to hop skip and jump and play the political game maybe I'd get there, but I can't do that, me personally I've got to prove to myself if no-one else that I can do it."
(code 1, female, level 5)

The other woman (code 2) described how she used her own, more feminine approach to satisfy the perceived demands of the career progression process:

"I like to think of myself as a successful woman. I use things men don't have, I'm disadvantaged in that I can't go to the pub with them, or have a talk in the gents, but I don't feel resentful. But I use my femininity, I can say things that they couldn't say to each other, I'm much freer to express my opinions that them because they would see it as much more as a threat, I can be in situations and facilitate between people, I can be more objective because I think I'm less competitive. I am competitive, but I'm competitive in a different way generally to them, I think that's to do with their maleness."
(code 2, female, level 5)

Thus, amongst this small sample, three types of decision - acceptance, compromise and rejection, appeared to be taken by the women IT managers in the way they dealt with perceived career progression procedures and characteristics. It is also interesting to consider these decisions in relation to the future career aspirations expressed by the sample managers.

Only 2 managers (codes 1 & 5) stated that they were unsure about their future career aspirations in Utility Co. For the man interviewed (code 5), he was unsure of his future in Utility Co as he had been disillusioned by the process of IT centralisation:

"I did have plans, but I no longer do because of the changes at ITHQ, it's disillusioned me." (code 5, male, level 4)

A junior woman manager (code 1) did not yet feel ready to look ahead in her career as she had only recently been promoted to management level. However, this manager did not link her uncertainty to rejection of perceived procedures and characteristics.

Each of the other managers expressed their desire to progress their careers within Utility Co. However, it is interesting to note that the woman manager (code 2) who described a choice of compromise, stated her decision to progress further in the company would be guided by the quality of what she was doing in her job rather than progression for status sake. She also viewed difficulties in her husband moving to the Midlands as a barrier for her future at Utility Co when the centralisation process was completed:

"In terms of going any further, I wouldn't rule it out now, but I think I'm more geared towards the quality of enjoying what I do rather than career progression for the sake of it. I probably, I have been offered opportunities in the past to go to ITHQ to work, it would be no more than my existing grade because I've only recently been appointed, but that I sort of feel because of my home life is not possible, my husband works etc.....I couldn't just pick up my family because it's not my decision, I'm still secondary in terms of that career side but sometimes I feel, yes I could do that and other times, that's an illusion, I wouldn't rule it out completely." (code 2, female, level 5)

Another woman manager who accepted the perceived demands of the procedures and characteristics also demonstrated her understanding of them by explaining that in order to reach the most senior levels in Utility Co in the future, she felt she should gain experience outside the IT division:

"I would like to increase my base of knowledge of (Utility Co), because if I'm going to get a lot higher, I need to do that. The Chairman and people like that have worked in a lot broader areas of the business."
(code 4, female, level 4)

Overall, the interview data does indicate that choices made by the women sample managers on whether to accept, reject or strike a compromise with the perceived demands of the career progression process may be linked with choices about personal and family lifestyle and the importance placed by an individual on the nature and content of a job.

7.6.6 The Impact of Equal Opportunities on the Career Progression Process

Each of the sample described aspects of the Utility Co equal opportunities policy and gave examples of different initiatives, such as the women's network scheme, harassment support and child care vouchers:

"I'm actually a harassment counsellor for our department....As a result of equal opportunities initiatives within each Region, within each department they've identified someone as an harassment counsellor and what we do is not provide advice, but someone who knows of the different avenues open

to staff who have a grievance, supposedly anything in the area of equal opportunities." (code 3, female, level 4)

"They are very good, they do offer you career breaks and lots of support and most people can part-time work now if they want to, which is great because it gives you that support and that help and they pay towards child care as well now..." (code 4, female, level 4)

"Equal opportunities basically starts right from the recruitment process and there is specific training given to everybody involved in staff selection or promotion, stressing all of the things that are perceived to be unequal in their selection process....analysing the people who are on the short list, people who got the job, those who didn't and there is a requirement to report that into Headquarters on a regular basis. All the monitoring side is very well looked after and very seriously interpreted." (code 6, male, level 2)

However, the view was expressed by some of the sample (codes 2, 3, 4), that despite an equality policy and different initiatives, it remained more difficult for women to progress their careers within Utility Co IT Division than men. For example, 1 woman manager (code 3) felt that the policy and initiatives, whilst effective in making staff more aware of equal opportunities and encouraging equal treatment, were not effective in achieving equal career progression opportunities for men and women. Two other women managers (codes 2 & 4) also felt that, despite the advantages of the women's returners scheme, part-time working and child care vouchers, career progression was much harder to achieve as quickly working part time. For 1 of these managers, this perception had led her to decide not to have children in order to progress her career:

"They are very good, they do offer you career breaks and lots of support and most people can part-time work now if they want to, which is great because it gives you that support and that help and they pay towards child care as well now. But it's the subtle underlying differences. If you work part-time, you work at your grade, but you can't take on the full role, so people tend to get put into the more mundane areas of work, because that's the only way you can work part-time. So again, that has an impact on how fast you can progress, it's almost inevitable. I've talked about it quite a lot with friends that have been in this situation and it's almost the sort of thing that you have to accept. I have a couple of friends that can't accept that who are very bitter and get very upset about it. But from my own personal perspective I think it's something you have to accept. You have to reach a compromise with yourself, that you can't do everything one hundred percent any more. You have to make that decision and what normally happens is that for several years you feel dissatisfied because you don't feel you're doing either job properly. They're torn between the two and I guess that's why I've never had children, because I've never been able to make that compromise." (code 4, female, level 4)

This perception of the link between part-time work and career progression was borne out in the experience of 1 woman manager who had combined children with working part-time and full-time at Utility Co. Whilst this manager did not feel her progression had been negatively effected by

her maternity leaves, she was aware that Utility Co were only prepared for her to undertake the management role on a full-time basis:

"When I first came back, I came back on a four day contract. For a start there was that option, they had introduced the child care support scheme with the vouchers and when I came back, they were much more, well how do you want to come back, they were much more accommodating to my needs, taking into account I had children. and management were incredibly sympathetic to what I wanted to do. The only problem is I came back four days a week and when I was offered the management role, there was a tacit understanding it would be full-time. I think they would have been happy to accommodate my requirements on a part-time basis at senior officer level, but if I wanted to make that next step..." (code 2, female, level 5)

Thus, whilst Utility Co does appear to have a comprehensive programme of equal opportunities initiatives, the extent to which these support equal opportunities in the career progression process may perhaps be questioned.

7.7 Summary

In comparing the career and work experiences of men and women within the sample, a number of results provided an insight to the factors effecting the IT management career progression process within Utility Co. In particular, the interview responses and observations showed not only differences *between* men and women managers, but also *amongst* men and women.

The profile of the sample itself was significant. It showed how it was more common for male managers to be married with children and for women to be single, or if married, be without children. Indeed, 2 women in the sample described how progressing a career had effected their family lives, with one managing to combine career and family and the other choosing not to have children in order to develop her career. Although part-time work practices existed within Utility Co, these arrangements did not appear to be applied to management jobs. Moreover, there was the perception that by working part-time managerial career progression would take longer to achieve than for a full-time employee.

Despite the above findings, many male and female managers interviewed perceived IT as having a good representation of both men and women at staff level, although representation was not perceived as so even at the management grades. The sample also described IT as one of the more *"equal"* company divisions.

Results showed that neither men nor women in the sample had undertaken significant IT education before entering IT management. In addition, only the women managers had gained technical programming experience. Indeed, 2 men and 1 woman in the sample had no analyst or programming experience prior to their entry to the IT field as managers. Thus, the emphasis

within Utility Co appeared more on the need and use of business, communication and human resource management than technical skills.

Evidence of various different perceived progression procedures, including networking emerged from the interview data. Similarly the characteristics managers perceived as important to exhibit in career progression did not accurately match those stated by IT Personnel. Thus, the perception appeared from the sample that two forms of the career progression process may have been operating within IT Co, a formal policy driven process and a more informal process driven by practice and traditions.

There did not appear a significant gender difference amongst the sample's awareness of procedures and characteristics. However, whilst women were able to specifically identify how they had learnt of the more informal aspects of the process, this appeared more as part of the men's tacit knowledge.

Another significant difference arose between men and women once both had knowledge of career progression procedures and characteristics. There was no indication amongst male managers that they chose any other route than following the perceived career progression procedures. Conversely, amongst the 5 women managers, decisions emerged which can be characterised as acceptance, compromise and rejection. Thus, the results of research within Utility Co, appears to indicate that the women in the sample considered the way in which they perceived the company demanded them to behave in order to progress their careers and then made an informed choice about how they would behave in practice. The same sort of analysis and decision making process was not reported by the men sample managers.

Thus, the influence of the perceived informal career progression process appears to be shown by the importance placed on it by the managers and the effect of it in influencing the way women approach their careers.

Utility Co appeared to have implemented a comprehensive equality programme, including many different initiatives to ensure equality of treatment between men and women. In addition, the sample managers were aware and knowledgeable about the programme. Nevertheless, the equality initiatives did not appear to extend to including the career progression process.

Chapter 8 - Case Study 3 - Retail Co

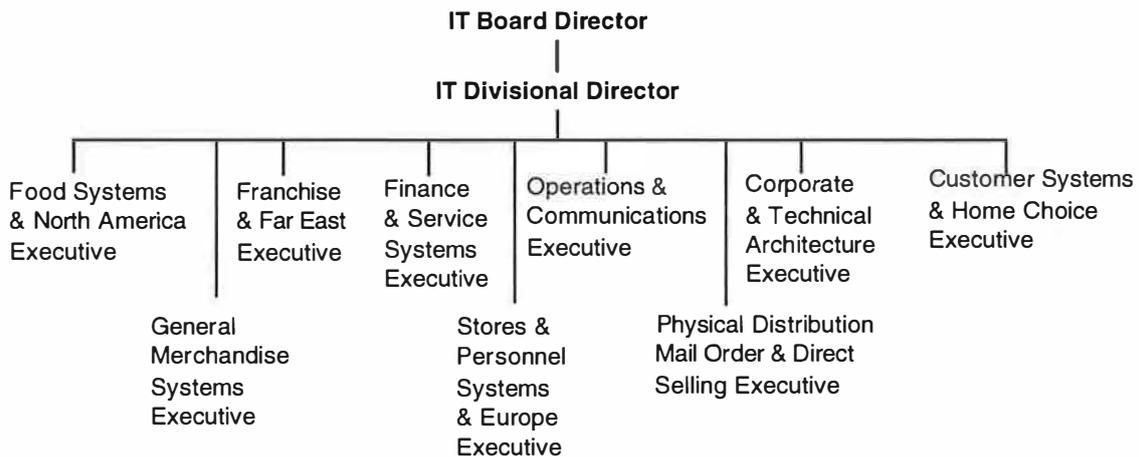
8.1 Context

Retail Co is a chain store selling clothes, home furnishings, food and personal financial services. At the time of the case study in November 1995, the company had almost 300 stores and around 100,000 staff in the UK. The company was also continuing to expand world-wide, opening an increasing number of stores in countries across Europe, North America and the Far East.

Information technology systems first began to be developed within Retail Co in the 1970s when they were predominantly employed in the payroll function. Staff working with the ICL mainframe computer at the company's computer centre in West London formed the focus of IT activity at this time. The strategic potential of IT only began to be realised within the company at the start of the 1980s. Recognition of the contribution IT could make to the business fuelled significant IT investment, including a new computer centre, migration from ICL to IBM systems and an increase in the number of IT staff employed from around 200 to about 1,000 in 1995 to support the rapid growth in use of personal computers within the business. To sustain the strategic role of IT, a member of the Board of Directors took overall responsibility for the IT Group. The development of IT is continuing within the company which over 1994 and 1995 invested more than £55 million in new information systems.

The budget for the IT Group is split into 9 different areas. The final decisions about the projects it will undertake are made jointly by the Managing Director and Board Directors in consultation with the IT divisional director and IT executives (Figure 8.1). Thus, the direction and scope of the IT Group is strongly driven by the needs of the commercial business.

Figure 8.1 Retail Co IT Group Senior Management Structure



8.2 Retail Co IT Staff and Approach to Equal Opportunities

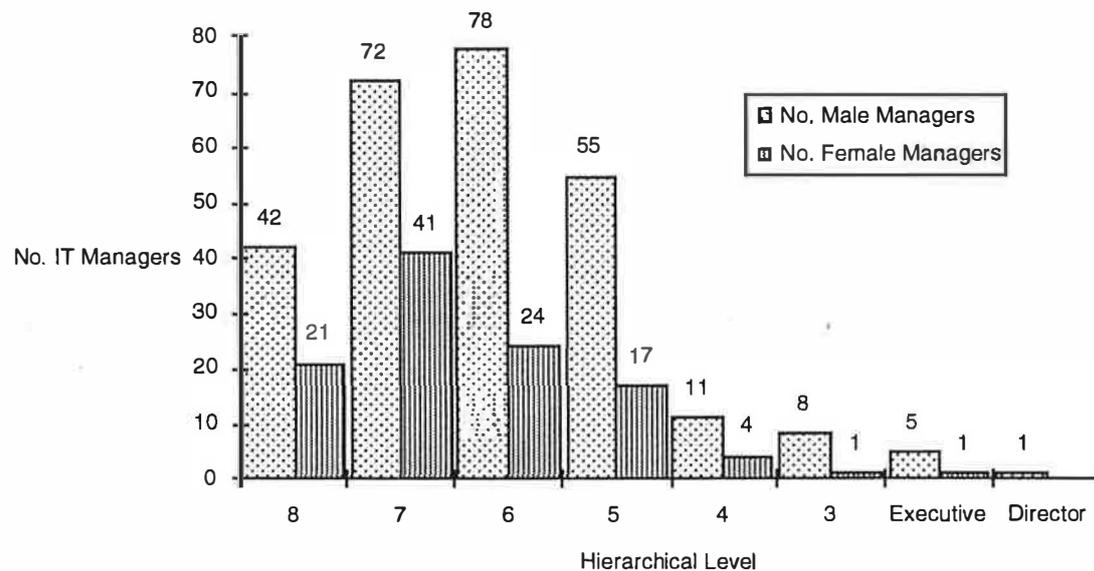
Retail Co employs around 1,000 staff in its IT function, 381 of which hold management grades. The hierarchical levels are defined by numbered bands. The management hierarchy spans band 8 up to band 1. The top 2 bands denote the Divisional Director and executive positions.

The career path of IT staff is divided between a managerial and technical route. The two routes follow the same banding system, although the technical hierarchy stops at band 3.

In total, just under one third of IT management staff are women (29%). As Figure 8.2 illustrates:

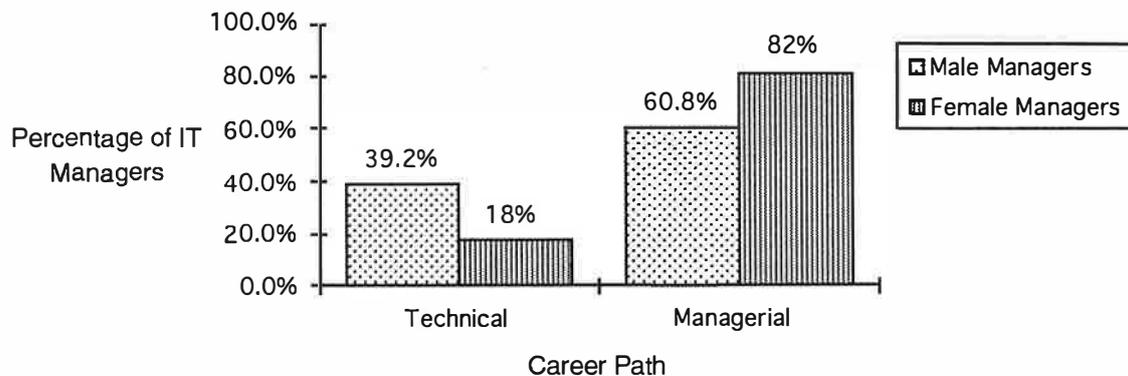
- one third of the most junior management posts (band 8) are held by women;
- just over one third (36.3%) of band 7 posts are held by women;
- the proportion of women managers drops at bands 6,5,4 and 3 where 23.5%, 23.6%, 26.7% and 11% of posts respectively are held by women.

Figure 8.2 Distribution of Men and Women Across the Management Hierarchy



It is also apparent that women in the IT division are concentrated on the managerial rather than technical career path. Eighty two percent of women at bands 5, 4 & 3 hold management positions, whilst only 18% hold technical positions. Conversely, 39.2% of men at these levels hold technical positions (Figure 8.3).

Figure 8.3 Distribution of Men and Women in Technical and Managerial IT Roles



Retail Co first established a policy on equal opportunities in 1993. Since this time the company has undertaken a number of equality initiatives including:

- ongoing equal opportunities staff awareness training attended by all levels of staff within stores and about 25% of head office staff to date;
- members of Opportunity 2000;
- equal opportunities monitoring of ethnic origin and gender of staff across the company to track the progress being made in working towards equality of opportunity;
- establishing policy and procedures for dealing with employee harassment;
- making stores more accessible to disabled people, including the setting up of model stores;
- family care policy offering enhanced packages to maternity leavers and opportunities for men and women to take a child or dependency break;
- addressing working practices mainly within stores to try and increase opportunities for flexible working, including job sharing and part-time work.

The company has not established equality initiatives aimed specifically at encouraging more women to enter or progress within IT. However, they have stated their commitment to fair and equal recruitment and career progression procedures:

"It is our policy that everyone should have full and fair consideration of all job vacancies for which they offer themselves as suitable applicants. We do not discriminate against anyone on any ground. The sole criterion for selection or promotion in the company is the suitability of any applicant for the job."

8.3 Skills and Attributes Sought in IT Managers

As the use and strategic importance of IT has developed within Retail Co, so too has the relationship between IT staff and users. Poor communication and little mutual understanding typified the IT-user relationship in the early development years of IT within the company. As one sample manager explained:

"Years ago IT could dictate business solutions. It would come up with ideas and implement them. Now the users are more IT literate and they're saying what they want to do. IT is being asked to do what the business wants, not what IT assumes they need."

Whilst this position has radically improved, with users now involved in many development projects, the IT group is aware that considerable progress still remains to be made. For example, the commercial divisions continue to question the value for money they receive from IT. As some of the sample IT managers described:

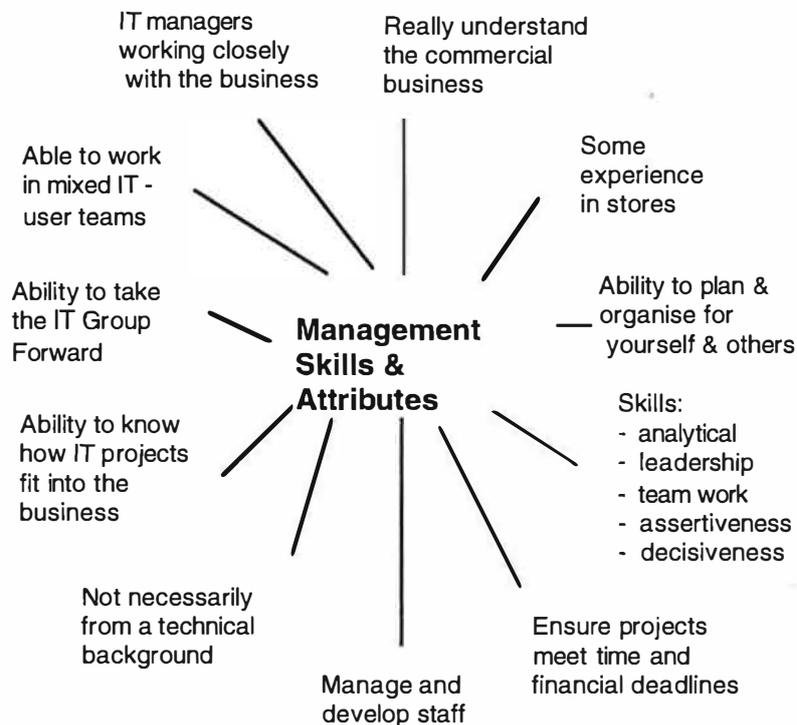
"I don't sit in an IT office, I share my office with the principal manager of the warehouses. It's something we've moved to in recent years."

"There is a concern in the business about how expensive we (IT) are."

"I think there is definitely a move for us to try and get closer to the business. I think it's proving difficult. I think because we have different priorities and a lack of understanding of each other."

Such business and user demands have placed pressure on the IT group to improve both their efficiency and effectiveness and become more closely aligned with the core business functions of the company. In order to meet this challenge, the Personnel department have mapped out the skills and attributes IT managers increasingly need to possess (Figure 8.4).

Figure 8.4 Skills and Attributes Sought in IT Managers by Retail Co



As Figure 8.4 shows, the skills and attributes identified by Personnel emphasise the importance of managers being able to understand the key business issues facing the company now and in the future and being able to develop IT systems which support the business. Importance is placed on leadership and team working skills, being able to manage and develop staff and operate in mixed IT-user teams. Two key words which encompass many of the attributes increasingly required of IT manager in the future are *efficiency*, in that projects must be managed to both time and financial deadlines, and *effectiveness*, in that projects must meet business needs. Notably, a technical background is not cited by Personnel as a prerequisite of the IT manager.

8.4 Interview Sample Profile

A total of 13 interviews were conducted within Retail Co, including 6 men and 6 women IT managers and an IT personnel manager (referred to hereafter as IT Personnel). Interviews were conducted with managers through from level 7 to level 3 in order that responses from junior, middle and senior IT managers, as well as from men and women, could be compared⁵⁵. As table 8.1 shows, the majority of men included within the sample were from the middle to lower management levels and the majority of women were from the middle to higher management levels. Considering the overall distribution of men and women in IT management positions (Figure 8.2), which shows that more women than men are represented in junior management levels and more men than women in senior management levels, it should be noted that this sample does not accurately reflect the distribution of men and women employed within the IT management bands.

Table 8.1 shows that:

- the sample managers had reached similar educational levels, with only 2 men having undertaken any postgraduate qualifications;
- only 3 managers, (2 men and 1 woman) had undertaken any formal computing education in their degree courses before entering IT;
- all but 1 of the women IT managers were married and 2 had children. All of the men were married, half of which also had children;
- despite more men than women within the sample being drawn from junior management levels, the average age of men within the sample was slightly older (35.5) than the average age of women managers within the sample (32.6)⁵⁶.

⁵⁵ The researcher requested that 12 managers - 6 men and 6 women - be interviewed across the different management levels within the IT group. Retail Co selected the managers according to this criteria. Within Retail Co, level 6 and below is considered junior management, levels 5 and 4 as middle management and levels 3 and above as senior management.

⁵⁶ It should be noted that one senior male manager within the sample was aged 50 and around 10 years older than many of the other managers interviewed. Therefore, this manager did raise the average age of the male sample. Without including this manager, the average age of men and women in the sample would be the same (32.6).

Table 8.1

Retail Co Sample Profile

| Code | M/F | H/L | Educational Level | IT Qualifications | Family Status | Age |
|------|-----|-----|-------------------|--|----------------------|-----|
| 1 | F | 5 | A'Levels | | married, no children | 35 |
| 2 | F | 4 | A'Levels | | single, no children | 38 |
| 3 | F | 5 | Degree | | married, no children | 41 |
| 4 | M | 3 | Degree | | married, 2 children | 50 |
| 5 | M | 6 | Degree, MBA | Maths for Business - including computing | married, 2 children | 33 |
| 6 | M | 6 | Degree, MBA | | married, no children | 31 |
| 7 | F | 6 | Degree | | married, no children | 29 |
| 8 | M | 5 | O'Levels | | married, no children | 35 |
| 9 | M | 6 | Degree | HNC Computer Science | married, no children | 33 |
| 10 | F | 3 | A'Levels | | married, 1 child | 45 |
| 11 | F | 5 | Degree | Maths including computing | married, 2 children | 37 |
| 12 | M | 6 | O'Levels | | married, 1 child | 31 |

Key: M = male F = female H/L = hierarchical level

All of the IT managers interviewed at band 5 and above (7 of the sample) were following a management rather than technical career path. Four of these 7 managers (codes 2, 3, 10 & 11) had progressed from programming and/or analyst roles. Two managers (codes 1 & 4) had moved into the IT Division as managers, having progressed up the hierarchy in other areas of Retail Co's business. The other manager (code 8) had progressed from being a computer operator and specialising in the telecommunications area. One other manager in the sample (code 12), had progressed from being a computer operator. However, each of the other junior managers had developed from programming and analyst roles. Thus, overall, the majority of the sample (8) had gained a technical IT background before becoming IT managers (Table 8.2).

Table 8.2

Retail Co Sample IT Managers' Career Path

| Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------|---|--|---|--------------------------------------|---|---|--|--|---|--|--|---|
| M/F | F | F | F | M | M | M | F | M | M | F | F | M |
| H/L | 5 | 4 | 5 | 3 | 6 | 6 | 6 | 5 | 6 | 3 | 5 | 6 |
| Co. 1 | | | Trainee programmer 1979 - 1981 | | Programmer -> analyst -> team leader 88-93 | Programmer 1988 - 1990 | | Comp op -> senior comp op '76-'82 | technical programmer 1984 - 1987 | IT trainee 1967 - 1971 | Programmer 1979 - 1982 | |
| Co. 2 | | | | | | | | comp op 1982-1984 | contract programmer 1987 - 1990 | Programmer 1971 - 1972 | | |
| Co. 3 | | | | | | | | comp op 1984-1986 | | Programmer -> systems analyst 1972-1977 | | |
| Co. 4 | | | | | | | | | | Project leader 77-83 | | |
| Retail Co | Service manager (band 6) 1988 - 1991 | Trainee programmer (band 8) 1981 - 1982 | Trainee programmer (July '81-October '81) | IT development manager (band 3) '92- | Analyst programmer (band 7) 1993 - 1994 | Analyst programmer (band 7) 1990 - 1991 | Trainee analyst programmer (band 7)'90-'94 | Comp op (band 7) 1986 - 1988 | Senior systems analyst (band 7) '90-'92 | Project leader (band 5) 1983 - 1985 | Sizing technician (band 8->7) 1982 - 1986 | Trainee operator 1983 - 1984 |
| | New systems implementor (band 6) 1991-1994 | Programmer (band 8) 1982 - 1984 | Programmer (band 8) 1981 - 1983 | | | Analyst programmer /team leader (band 7)91-94 | Information technician (band 7) 1994 - 1995 | Trainee data comms technician (band 7) 1988 - 1990 | Project leader (band 6) 1992- | Manager - Foods (band 4) 1985 - 1989 | Team leader (band 6) 1986 - 1987 | Operator 1984 - 1987 |
| | Project manager (band 5) 1994- | Senior programmer (band 7) 1984-1986 | Analyst programmer (band 7) 1983-1985 | | | Systems analyst/ project leader (band 6)'94- | Analyst programmer/ team leader (band 6)'95- | Data comms analyst (band 6) '90 | | Maternity Leave 1989 - 1990 | Project leader (band 5) 1987 - 1989 | Senior operator (band 8) 1984 - 1987 |
| | | Systems analyst (band 6) 1986-1988 | Systems Analyst (band 6) 1985 - 1989 | | | | | Project leader (band 5) 1990- | | Manager - Operations (band 4)' 1990-1992 | Maternity Leave 1989 - 1990 | Team leader (band 7) 1989 - 1990 |
| | | Project leader (band 5) 1988-1994 | Senior systems analyst (band 6) 89-92 | | | | | | | Technical architect (band 4->3) 1992 - 1994 | Project leader 1990 - 1993 | Shift leader (band 6) 1990- |
| | | Manager (band 4) 1994- | Project leader (band 5) 1992 - | | | | | | | Manager - Distribution (band 3)'94- | Maternity leave 1993 - 1994 | |
| | | | | | | | | | | | Project leader (band 5) 1994 - | |

Key: M = male F = female H/L = hierarchical level comms = communications comp op = computer operator

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One woman manager described how she had relied on women colleagues to learn how career progression worked:

"I have had women managers who have really helped me again probably informally - you know you happen to get on women to women as it were and I think also that maybe I also may have helped one or two women along the way as well - there is a kind of even if its not an old girl's network, there is a certain amount of sympathy and empathy and so on.."
(code 10, female, level 3)

Not only did differences arise within the sample in how men and women managers acquired information about the career progression process, but the point at which they developed awareness also differed. Five of the women and five male managers were able to re-call the point in their career at which they became aware of how career progression worked. On average, the women managers had worked within Retail Co for 10 years before they felt they had a sound understanding of the characteristics and procedures associated with career progression. In contrast, on average, the men felt it took them just 1.6 years (Table 8.11).

Table 8.11 How and When IT Managers Developed Awareness of Career Progression Procedures and Characteristics

| Code | M/F | H/L | How Awareness Developed | When Awareness Developed |
|------|-----|-----|--|---|
| 1 | F | 5 | Communicated by line manager, watch & learn | As approached band 5 (15 years after joining Retail Co) |
| 2 | F | 4 | Communicated by line manager | As approached band 4 (16 years after joining Retail Co) |
| 3 | F | 5 | Just picked it up, when needed to promote someone below them | As approached band 5 (11 years after joining Retail Co) |
| 4 | M | 3 | Watch and learn | About a year after joining Retail Co |
| 5 | M | 7 | Communicated by line manager | About a year after joining Retail Co |
| 6 | M | 6 | Just picked it up, by not being promoted | About a year after joining Retail Co |
| 7 | F | 7 | Watch & learn | About a year after joining Retail Co |
| 8 | M | 5 | Just picked it up | About a year after joining Retail Co |
| 9 | M | 6 | Communicated by line manager, watch & learn | Unknown |
| 10 | F | 3 | Watch & learn | Unknown |
| 11 | F | 5 | Experience, picked it up | After first maternity leave (7 years after joining Retail Co) |
| 12 | M | 6 | Communicated by line manager | As approached Band 8 (4 years after joining Retail Co) |

Key: M = male F = female H/L = hierarchical level

8.6.6 The Effect of Perceptions of Career Progression Procedures and Characteristics on IT Managers' Career Progression

Having gained awareness of career progression characteristics and procedures, each manager within the sample in some way appeared to make a choice about how they would operate within

the company and about their future careers (Table 8.12). These choices were based on 3 primary factors:

- whether a manager agreed with the career progression characteristics and procedures;
- whether a manager felt they had the ability to follow the characteristics and procedures;
- whether a manager was actively seeking career progression.

Table 8.12 Choices Made by Sample Managers Following Knowledge of the Perceived Career Progression Process

| Code | Male / Female | Hierarchical Level | Choice |
|------|---------------|--------------------|------------|
| 1 | Female | 5 | compromise |
| 2 | Female | 4 | acceptance |
| 3 | Female | 5 | compromise |
| 4 | Male | 3 | acceptance |
| 5 | Male | 6 | compromise |
| 6 | Male | 6 | acceptance |
| 7 | Female | 6 | rejection |
| 8 | Male | 5 | acceptance |
| 9 | Male | 6 | acceptance |
| 10 | Female | 3 | compromise |
| 11 | Female | 5 | acceptance |
| 12 | Male | 6 | compromise |

Overall, the majority of male managers (4) and 2 women managers (codes 2, 4, 6, 8, 9 & 11) accepted the characteristics and procedures and decided to follow them. For example, as 1 manager described:

"I'm trying to raise my profile ...because for me, the decision makers are external to my area and as you move up the hierarchy, the people you must influence are less immediate and less within your immediate sphere, so you have to create opportunities to meet them and impress them. That's the way the company's run. I think it's the right way to do it ...You must always try and get a sponsor, someone must be advocating your greatness to others. There's no formal mechanism for making that happen."

(code 6, male, level 6)

Three women (codes 1, 3 & 10) and 2 male managers (codes 5 & 12) described a decision of compromise. These managers explained how they did not feel comfortable with the concept of profile raising and did not find networking easy. However, each recognised the importance of raising their profiles in the career progression process:

"Raise your profile as its known here...that's the worst statement ever as far as I'm concerned. I don't believe in going round promoting yourself as look how great I am and so on . I think it's important to be noticed based on my job, what I've delivered, but that's not how Retail Co works. That's my most difficult hurdle I have to get over, because otherwise I'm not going to go very far." (code 5, male, level 6)

One woman (code 3) and one man (code 5) stated that they would network and raise their profile more when they wished to progress. One other man (code 12) and 1 other woman manager (code 1) stated that they networked more when they came under pressure from their managers to do so.

"I wouldn't do it willingly but I have to say that I work with various line managers who say to me you really need to do this, you do and my boss who said this is a good piece of work, we should go and explain it to such and such and I say why would they be interested and he says, it doesn't matter whether they are or not just go and talk to them! Sometimes I go and sometimes I don't. I suppose sometimes I'm a fool to myself because if I think this is needed for commercial reasons, I do it, but if my boss just says, look tell so and so about this, if I'm going to feel so uncomfortable doing it then I don't do it. Which is probably silly." (code 1, female, level 5)

A senior level woman manager (code 10) described how she had made a conscious effort to raise her profile in order to progress her career. She did this by making sure she was first moved into a job role where she had access through the job to a large number of senior managers across IT and user areas.

Only 1 junior female manager (code 7) decided to reject the concept of profile raising in pursuing career progression. However, the manager realised that this may have the effect of prolonging or even preventing her progression. Therefore, the choices she felt she had were either to leave Retail Co or change her approach and adhere to the perceived career progression process:

"I don't actually like doing it (networking). It involves making contact with people outside your own team, so going to lunch with someone from another team, going and just chatting to them... making yourself known. I find it difficult to do, some people don't, but I do find it difficult and it's an effort it's hard work to do and rightly or wrongly I feel lunch time is my time off from work. I can see the point of view that the more people that know you the more people that know your skills, then its probably likely that you're going to get on a little bit quicker. But I don't think it should be like that. I think it should work that if you're line manager thinks you're brilliant at something, you should be able to get promoted for it. I think I've got to a stage now where I think it might have an effect on my career. I've been here five years and I think I feel that I should be progressing at the moment, but it's really difficult because I feel I want to and feel I've got the ability to do but it's like, I don't want to do the things that they want me to do in order to progress, in terms of things like networking. I mean maybe you might come back in a year's time and I might be networking like mad and have decided this is the only way to do it." (code 7, female, level 6)

Despite a mixed reaction of acceptance, compromise and rejection of the demands managers perceived were made of them by the career progression process, half of the sample stated their aspirations to progress in the future (Table 8.13). It is notable that the junior woman manager (code 7) who rejected the concept of profile raising, did have progression aspirations. Indeed, as the above quotation showed, she was aware that her decision to reject may effect her

progression chances. It is also important to note the progression aspirations of the other sample managers were not so much influenced by the perceived demands of the career progression process, than by impressions of the demands of the job role at the next level. For example, 1 woman manager (code 3), was unsure whether she wished to progress further as she felt a more senior job would take her away from a team management role, which she enjoyed. In particular, 1 woman manager, who had a child, felt she could not progress to the next level due to the hours and dedication she believed it demanded, which she felt, would be difficult to combine with caring for her daughter:

“No, I won't be an executive. I don't want to put any more effort in. Actually, I'm exhausted.... and it's a big jump, executives in my understanding, certainly in my observation.... it's very long hours, more than that, it's dedication.” (code 10, female, level 3)

Table 8.13 IT Managers' Future Career Aspirations

| Code | M/F | H/L | Aspire to Career Progression | Rationale for not wishing to progress to a higher grade |
|------|-----|-----|------------------------------|---|
| 1 | F | 5 | no | Not too ambitious |
| 2 | F | 4 | yes | But with a limit, don't wish to be an executive |
| 3 | F | 5 | unsure | Not beyond level 4 because that is too far removed from working with a team |
| 4 | M | 3 | no | Content in present grade |
| 5 | M | 6 | yes | ----- |
| 6 | M | 6 | yes | ----- |
| 7 | F | 6 | yes | ----- |
| 8 | M | 5 | yes | ----- |
| 9 | M | 6 | yes | ----- |
| 10 | F | 3 | no | Does not feel can combine child care with hours and dedication demanded. |
| 11 | F | 5 | no | Feels having had a child has prevented her from doing some of the things company demands to be promoted |
| 12 | M | 6 | unsure | Not too ambitious |

Key: M = male F = female H/L = hierarchical level

This section has highlighted that, on gaining information about career progression, many managers who chose to accept or strike a compromise with the perceived demands, each in some way described how they changed their behaviour. The behaviour change in each case concerned the perceived need to profile raise or network. The decisions made by the managers, about whether and the extent to which they would change their behaviour in order to raise their profiles, appeared to be influenced by two major factors:

- whether networking opportunities arose as part of a job or had to be manufactured;
- whether a manager felt that they were good at raising their profile or that it came naturally to them.

Each of the managers that accepted the concept of networking felt that it was an important part of their job, enhanced their job effectiveness and did not experience any difficulty in networking. They did not perceive making opportunities to network as falsely creating profile raising situations. As two managers explained:

"I'm trying to raise my profile with the people over at the computer centre. So the people over at the computer centre - do they know what I do and what I'm good at, or the projects that I'm working on. So what I'm doing now it's not manufacturing circumstances but I'm inviting them into the discussions we're having now and are relevant to them...I mean we could do the project without talking to them, but they will have a role to play so why present them with a fait accompli, why not try to elicit some buy in early on in the process"
(code 6, male, level 6)

"If this sort of communication isn't done to excess it can help the work progress. For example, for programmers - cupboard people - they like to be quiet, therefore other people shouting about the project for them is helpful, it advances the project - programmers aren't natural communicators."
(code 11, female, level 5)

In contrast, managers who compromised or rejected profile raising did perceive it as a process by which situations outside the normal scope of their job had to be manufactured, and therefore detracted from their job effectiveness. Many of these managers did not feel they were particularly good at manufacturing opportunities to network, although they were effective at communicating and networking with other managers, when the job in hand demanded it:

".....For me communication is something I enjoy and am generally good at, but I target it at people I need to communicate with in order to get the job done.I feel its (profile raising) all unnecessary and that it can have a detrimental effect on people's performance because I think those people that get the message that the way to get on is to do this actually focus on that rather than in some cases on the job they are supposed to be doing."
(code 1, female, level 5)

Overall within the sample the interview results showed that men were more likely than women IT managers to fully accept the demands to profile raise made by the perceived career progression procedures and characteristics and change their behaviour accordingly. Conversely, the women IT managers within the sample were more likely than the men to compromise their behaviour or to completely reject the changes in behaviour they felt were being demanded. Added to this is the suggestion, resulting from the interviews, that women IT managers may gain access to informal messages relating to career progression later than their male counterparts.

8.6.7 The Impact of Equal Opportunities on the Career Progression Process

Each of the IT managers interviewed stated they were aware that Retail Co had a policy on equal opportunities. However, knowledge of the policy objectives associated initiatives was less well spread. It appeared within the sample that unless an individual had been directly effected by an

issue associated with equal opportunities, for example, returning after maternity leave, or being consulted about a policy document, their knowledge about the approach of Retail Co to equality was limited:

"I do know there have been various initiatives over the years, but I can't say they've involved me particularly" (code 1, female, level 5)

"The policy is general, not specific to IT and you can even go on training courses for it. You need to talk to someone in the Personnel department to define exactly what it is, but we've got one and I think I know what it means....I think what it means is that every individual is considered on their merit and we live in a meritocracy." (code 4, male, level 3)

Two women IT managers interviewed had taken maternity leave before the development of formal returner arrangements within the company. Both felt that few flexible work opportunities had been available to them at the time of their return. Consequently, 1 manager returned full-time immediately after her maternity leave, the other returned on a 3 day week basis and slowly increased this back to a full-time position. The latter felt that such an arrangement would have been impossible if she had not had a supportive executive, highlighting how achieving flexibility in practice can be a subjective process.

One of the managers who had returned after maternity leave chose to work at the Computer Centre in West London as this reduced her travelling time and more easily enabled her to manage work and child care arrangements. However, she believed that not having worked at the Head Office and in particular on the implementation of a major IT development, she had forfeited opportunities for career progression, as she perceived such experience was considered important for progression.

The awareness and knowledge amongst the IT managers interviewed about Retail Co's approach to equality suggested that they had not formed a link between equal opportunities and everyday working practices. In addition, there was a tendency to view the issue as the responsibility of the personnel function.

The initiatives referred to by Retail Co IT Personnel show that the company has adopted measures to date mainly aimed at improving formal structures and procedures to support their equal opportunities policy. Less emphasis has been placed on addressing the appropriateness of staff behaviour and attitudes and organisational cultures in supporting the equality policy. In addition, no work has yet been undertaken in considering how formal structures and procedures may effect ensuring equal opportunities in practice. Retail Co has acknowledged that this is an area that requires further attention in the future.

8.7 Summary

This section highlights 3 key aspects in comparing the experience of men and women IT managers as they progress through their careers. These can briefly be described as:

- the dilemma of technical skills and experience;
- the role of formal career progression procedures in developing informal career progression practices;
- the capacity of equality policies to highlight informal organisational practices and procedures and identify their effect on men and women employees.

The interviews showed how the sample men and women IT managers were very evenly matched in technical skills training and experience. In addition, almost no difference emerged in the skills men and women were using in their current job roles. In some areas, more women than men referred to the skills highlighted by IT Personnel as increasingly required by IT managers in the future.

IT Personnel were placing increasing emphasis on the need for general management and business skills as oppose to technical skills amongst IT managers and the need for such skills was confirmed by the managers themselves. Slightly more women than men had gained commercial experience in another business area before entering IT. This was firmly in line with the emphasis being placed by IT Personnel on IT managers having gained experience in a non-IT environment. More women than men felt that technical experience was important for the IT management role in commanding respect, aiding self confidence and making appropriate decisions about technology. The differences of opinion highlighted difficulties that may be faced by an IT manager entering the role without technical experience as well as the importance of establishing a strong team with a mix of technical, management and business knowledge.

The formal career progression procedures within Retail Co appear to be clearly structured and designed to promote, as far as possible, equal access to jobs across the IT Group and limit subjectivity. However, a major element of the procedures - gaining three-way executive sponsorship - appears to provide scope for informal practices, largely described by the sample managers as being associated with "*profile raising*", to influence the career progression of IT managers. The prevalence of informal practices associated with profile raising may have developed as a result of lack of guidance or procedures from the Personnel Forum as to how three-way executive sponsorship should be gained. Each of the managers perceived profile raising to be an extremely important element of the career progression process. Perhaps because of lack of guidance about gaining sponsorship, many different methods of profile raising were described.

Interview results showed that many of the characteristics IT managers perceived as important for career progression were different from those formally stated by IT Personnel. In addition, many of

the characteristics referred to by the managers could be described as informal in nature, including elements such as *"fitting in"* and *"managing politics"*. No clear difference in awareness of the informal characteristics could be discerned between the men and women IT managers interviewed. However, the results suggest that skills and attributes perceived to be required for IT managerial career progression and some perceived associated career progression procedures, such as profile raising may be communicated informally within the organisation. In addition, they suggest that women may gain access to this information at a later stage than men in their careers.

Whilst all managers interviewed referred to the fact that they worked long hours (10 - 12 hour days), only 2 linked long hours with career progression. However, it is important to note the difficulty a manager may have in combining long working hours with family care responsibilities.

Having gained information about the perceived skills and attributes required for career progression and associated procedures, IT managers appear to make a choice related to their behaviour within the company and future career progression aspirations. The 3 choices appeared as: acceptance; compromise and rejection.

The managers' choice appeared to be largely based on 3 factors:

- whether a manager agreed with the perceived characteristics and procedures;
- whether a manager felt s/he had the ability to follow the perceived career progression process;
- whether a manager was actively seeking career progression .

Overall within the sample, more women than men appeared to disagree with the perceived characteristics and procedures and, in some cases, felt less able to adhere to them. Consequently, more women expressed the choices of compromise or rejection. Rejection was perceived by the IT managers to involve the consequence of forfeiting career progression opportunities.

Descriptions of acceptance or compromise made by the managers interviewed suggested that these decisions involved, for many, a change in behaviour. Whether managers chose to change their behaviour in order to meet the perceived demands of the career progression process and the extent to which behaviour was changed seemed also to be influenced by:

- whether a manager felt profile raising opportunities arose as part of their job or had to be manufactured;
- whether a manager felt they were good at profile raising or that it came naturally to them.

The scope of Retail Co's approach to equal opportunities does not yet consider the ways in which formal policies, such as career progression, may contribute to the development of equality

barriers between men and women managers within the IT group. Whilst Retail Co appear to have acknowledged the importance of considering the impact of more informal aspects of the company, such as behaviour, attitudes and cultures, and assessing equality aspects of formal policies and procedures on achieving equal opportunities, it is not yet clear how this challenge will be approached.

Chapter 9 - Case Study 4 - IT Co

9.1. Context

IT Co is a North American organisation which manufactures computer products and provides computer services and support. The case study was carried out in March 1996 within the UK subsidiary of IT Co. The UK subsidiary employs around 4,600 permanent staff and has sales and support offices, research and development laboratories and manufacturing operations spread across 3 sites.

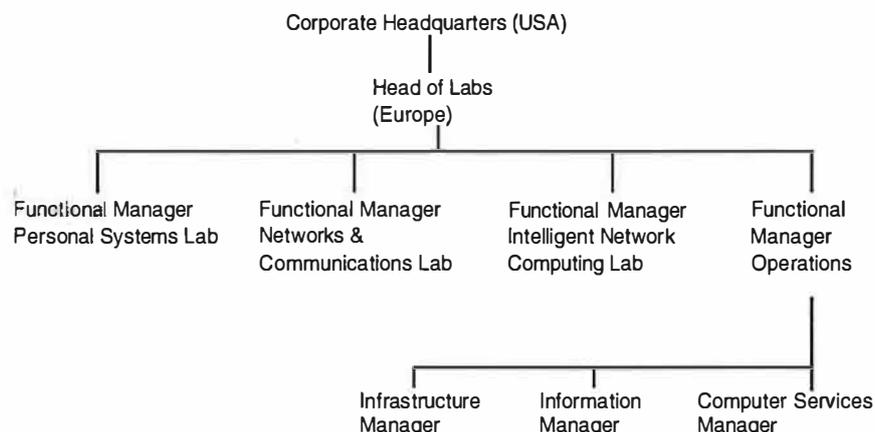
Globally, IT Co is organised along matrix structures, with head offices situated in North America. The case study was based in one of its UK sites housing 3 research and development laboratories (labs). The labs undertake long range and high risk research and are charged with undertaking research in information technology areas relevant to IT Co's business.

The 3 labs have their IT needs met by a support function — Operations, which provides support to lab researchers, library, administration and finance staff. This includes the purchasing, installation, repair and maintenance of hardware, software, operating systems and networks, as well as research into new software which will be useful to research staff. Support activity is divided into 3 areas:

- Infrastructure: supporting servers and operating systems;
- Information: help-desk, solving software problems, researching new software;
- Computer Services: providing PC hardware and software support services.

Figure 9.1 illustrates the structure of the case study site and highlights the flat hierarchical reporting structure which has just 3 management levels.

Figure 9.1 Overview of IT Co Labs Structure



In establishing the context of the case study, it is important to note the recurring theme that arose in interviewee's responses to questions about career progression, of the importance the company culture places on technical skills, knowledge and education:

"IT Co is very much in this led by engineers mould and that pervades the culture of the organisation — there is a high value placed on the technical skills rather than the financial commercial skills."

"IT Co values quite highly engineering skills or technical skills in its people."

"They certainly look for the right academic background. You get to a certain level and you have to have a degree."

These views are reinforced by company literature, which also highlights the value placed on technical skills, knowledge and education:

"Virtually all the managers who have served, or are serving, in top positions at IT Co have had a technical background.....They also benefited from having a variety of jobs within the company, including assignments requiring a good knowledge of electronics and computer technology."

"To some, education means unnecessary sacrifice; to others it means the prospects of opportunity for increased contribution and greater personal satisfaction. Fortunately, the latter view has prevailed at IT Co. The vast majority of our people have recognised the value of education and self-development, not only in enhancing their careers but also in making meaningful contributions to the company's progress."

9.2 IT Co Staff and Approach to Equal Opportunities

IT Co labs employ around 300 people, 200 of whom are researchers. The remaining staff are based within the labs support functions which include IT support, human resources, finance and administration, and the library.

Within labs there are 54 male and 6 female managers. Two of the women managers are based in the research community, the other 4 work within the support function. IT Co were unwilling to provide a male and female breakdown of management staff within the other UK functions.

Despite the low number of women IT managers, the company world-wide has a commitment to achieving equal opportunities. It has undertaken and continues to invest in several different equality initiatives, including:

- the introduction of a number of flexible working practices, such as teleworking, term-time working and part-time working. All of these can be practised up to and including management levels, within the constraints of business needs;
- maternity leave benefits that go beyond the statutory minimum and includes 18 weeks on full pay;

- a staged returner scheme where women can come back to work part-time for six months after maternity leave before resuming a full-time position;
- encouraging women to enter and succeed in technical roles by establishing a world-wide women's technical network.

Specific efforts have been made to encourage women to enter technical roles by:

- sponsoring women IT students;
- an annual 'bring your daughters to work' day;
- checking their recruitment image to ensure women are featured in all advertisements and brochures, and that the company's commitment to equal opportunities is clearly stated in all recruitment literature.

More recently, the Chief Executive and Chairman have stated IT Co's commitment to achieving and managing workforce diversity. The definition of diversity adopted goes beyond that of the initial equal opportunities policy which focused on race, gender and disability only, to also include.

- age;
- nationality/ethnicity;
- language;
- economic status;
- culture;
- ways of thinking;
- sexual orientation;
- religion.

The Chief Executive has placed responsibility for diversity on senior managers world-wide. Within IT Co labs, a strategy and work plan for diversity is being developed. To date, work in this area has focused on male and female behaviours and attitudes and the career progression process. Work groups consisting of staff and managers from the labs have been established to research each of these issues.

The results of the career progression work group show that there was no real difference in the way men and women experienced career progression. However, they found an overall lack of understanding of the process. Consequently, an information sheet was being prepared to send out to each individual within labs to explain the process to them. The work group also concluded that women were less confident than their male counterparts. Consequently, IT Co labs decided to develop a confidence-raising course specifically for women.

9.3. Skills and Attributes Sought in IT Managers

Two parallel career paths exist for IT staff — technical and managerial. Within both paths, staff are classified as having reached management level at grade 10⁵⁹. The management grades continue up to 14 along both paths. The skills and attributes expected from IT managers are detailed in a 'job family book'. The book, developed by job evaluation experts, documents all the IT roles in the UK along these career paths. It details the different skills required and levels of performance expected at each grade and includes individual job descriptions.

IT Co was unwilling to provide access to the job family book as the company viewed its role in the organisation and career progression of IT staff as providing it with a competitive advantage. However, the Head of Personnel within labs was able to describe some of the generic skills looked for in IT managers (Figure 9.2).

Figure 9.2 Skills and Attributes Sought in IT Managers by IT Co



In addition to general management skills, Figure 9.2 shows how specific skills such as creativity and ability to push technical boundaries are looked for in technical managers as they progress from grade 10 through to 12. As IT managers on the managerial career path progress towards grade 14, the ability to act and contribute at a higher strategic level is required. Despite the cultural emphasis placed on technical skills and experience, IT Co policy states that technical qualifications and background are not prerequisites for managers progressing along the managerial career path.

9.4 Interview Sample Profile

In total, 6 men and 6 women were interviewed, together with the Head of Personnel (referred to hereafter as IT Personnel) for the case study site. IT Co were only able to identify 1 IT woman manager within labs who agreed to participate within the research. Two other women managers

⁵⁹ The lowest level on both paths is grade 1.

were identified in the sales and manufacturing divisions of IT Co UK who agreed to be interviewed. Consequently, the remaining 3 women interviewed were on staff rather than managerial grades⁶⁰.

Nine of the interviewees were employed in support roles and were progressing up the managerial career ladder. The remaining 3 interviewees were researchers (labelled by IT Co as technical staff) holding management grades on the technical career path (Table 9.1).

Table 9.1 IT Co Sample Profile

| Code | M/F | H/L | Division | Job Role | Education Level | IT Education | Family Status | Age |
|------|-----|-----|-------------|----------|-----------------|---|----------------------|-----|
| 1 | M | 10 | Labs | Support | OND | None | married, no children | 33 |
| 2 | M | 11 | Labs | Research | Masters | Masters IT Conversion | single, no children | 33 |
| 3 | F | 11 | Manu | Support | HND | HND Computer Studies | married, 2 children | 30 |
| 4 | F | 6 | Labs | Support | HND | HND Management Information Systems | married, no children | 23 |
| 5 | M | 10 | Labs | Research | Masters | Computer Degree, Masters in Information Systems Engineering | partner, no children | 33 |
| 6 | M | 12 | Labs | Support | A'Levels | None | married, 2 children | 34 |
| 7 | F | 5 | Labs | Support | HND | HND Business Information Systems | married, 2 children | 34 |
| 8 | F | 12 | Sales | Support | Masters | None | married, no children | 39 |
| 9 | F | 11 | Labs | Research | Masters | MSc Information Technology Conversion | single, no children | 30 |
| 10 | M | 11 | Labs | Support | 1st degree | None | married, 2 children | 32 |
| 11 | F | 9 | Labs & Manu | Support | 1st degree | Open University Degree in Computing | married, no children | 32 |
| 12 | M | 11 | Labs | Support | 1st degree | TOPS Programming course ⁶¹ | married, 3 children | 36 |

Key: M = male F = female H/L = hierarchical level Manu = Manufacturing

⁶⁰ One of the women was a grade 9, just below the management level, whilst the other two were on grades 5 and 6. Despite the difference in grades, little difference occurred in the results from management and non-management interviewees.

⁶¹ Government re-training scheme

Two of the sample who held research management posts had no staff reporting to them. This was explained by IT Personnel to be quite typical as research managers were generally not required to manage other staff.

Table 9.1 shows that overall, both men and women were highly educated with 7 having attained degree or masters level qualifications. Only 5 of the 9 support staff, four of whom were women, had undertaken IT education. This reflects the statement made by IT Personnel that IT education was not a prerequisite for an IT support management role.

It is interesting to note that overall, more women (5) than men (3) had undertaken IT education. Only 1 man compared with 4 women in IT support roles had undertaken IT education before entering the field. Each of the technical managers had gained IT qualifications at masters level before entering IT research job roles.

Ten of the 12 interviewees were married or living with a partner, 5 of which (2 women and 3 men) had children. All of the sample were aged in their 20s or 30s and the average interviewee age was 32.4. Overall, the average age of women in the sample (31.3) was slightly younger than that of the men (33.5). However, this gap may be expected as whilst all the men in the sample were managers, 3 women had not yet reached this level.

Seven of the sample (5 women and 2 men) had undertaken roles in different companies before entering IT Co and the field of IT. Four women and 1 man had undertaken IT qualifications in order to facilitate their change in career direction (Table 9.2).

Table 9.2 Career Prior to IT

| Code | H/L | M/F | Career Path Prior to IT Entry | IT Education |
|------|-----|-----|--|--------------|
| 1 | 10 | M | Development electronic engineer | No |
| 2 | 11 | M | none | --- |
| 3 | 11 | F | none | --- |
| 4 | 6 | F | Supermarket departmental supervisor | Yes — HND |
| 5 | 10 | M | none | --- |
| 6 | 12 | M | none | --- |
| 7 | 5 | F | Secretary; clerk; craft worker; canteen chef; retail sales assistant | Yes — HND |
| 8 | 12 | F | Accounts clerk; accountant | No |
| 9 | 11 | F | Marketing assistant, management consultant trainee | Yes — MSc |
| 10 | 11 | M | none | --- |
| 11 | 9 | F | Insurance clerk | Yes — BSc |
| 12 | 11 | M | Geographic analyst, ship navigator | Yes — TOPS |

Key: M = male F = female H/L = hierarchical level

Once employed within the case study company, only 5 of the interviewees have changed job roles (codes: 1, 3, 8, 11 & 12), 4 of which included career progression to a higher grade. Table 9.3 shows how 2 managers (codes 2 & 6) progressed to higher grades within the same post.

Table 9.3

IT Co Sample IT Managers' Career Path

| Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-------|---|---|--|--------------------------------|---|---|---|---|--|---|-------------------------------------|---|
| M/F | M | M | F | F | M | M | F | F | F | M | F | M |
| H/L | 10 | 11 | 11 | 6 | 10 | 12 | 5 | 12 | 11 | 11 | 9 | 11 |
| Co. 1 | | | Trainee programmer 1983 - 1985 | PC support 1993 - 1995 | Senior systems & software engineer 1989 - 1994 | Computer operator 1978 - 1980 | | | | | | Trainee programmer -> programmer 1987-1988 |
| Co. 2 | | | Programmer 1985 - 1987 | | Systems engineer 1994-1995 | Computer operator 1980 - 1982 | | | | | | |
| Co. 3 | | | Analyst programmer 1987 - 1989 | | | Campus networking 1982 - 1988 | | | | | | |
| Co. 4 | | | | | | Operations manager 1988 - 1990 | | | | | | |
| IT Co | Test engineer (grade 8) 1987 - 1988 | Member of technical staff (grade 10) '87-90 | Software applications engineer (grade 8->9->10) '89-95 | PC support (grade 6) 1995 - | Member of technical staff (grade 10) 1995- | Computer operations team leader (grade 10) 1990 - 1991 | On-line information administrator (grade 5) 1994 - | Systems & financial support manager (grade 11) 1990 - 1994 | Member of technical staff (grade 11) -contracted 1991-1994 | Client services manager (grade 11) 1994- | PC support (grade 8) 1988 - 1991 | Analyst programmer (grade 8) 1988 - 1990 |
| | Technical specialist (grade 9) 1988 - 1994 | Member of technical staff (grade 11) 1990- | Site services solutions manager (grade 11) 1995- | | | Computer services team leader (grade 11) 1991 - 1993 | | UK client services manager (grade 12) 1994- | Member of technical staff (grade 11) -permanent 1994- | | UNIX support (grade 9) 1991- | PC team supervisor (grade 8->10) '90-'94 |
| | Infrastructure support & development manager (grade 9) '94- | | | | | Computer services manager (grade 12) 1993- | | | | | | Desktop computing group manager (grade 11) 1994- |

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9.5 IT Managers' Skills and Attributes

The skills and attributes sought in IT managers by IT Personnel were compared with the actual skills interviewees said they used in their job roles (Table 9.4). In making this comparison, neither list of skills provided by IT Personnel or the sample should be viewed as complete. IT Personnel referred only to key generic skills. It is also likely that the interviewees only referred to skills they had used most frequently or recently before the interview. Table 9.4 can nonetheless provide a feel for the extent to which the skills used by interviewees match the skills sought by IT Personnel⁶².

The skills referred to fall into four major categories:

- technical skills;
- research skills;
- business skills;
- general management skills.

The majority of skills referred to fall into the general management skills category. Perhaps due to their lower grade, the 3 non-management women (codes 4, 7 & 11) did not refer to skills in this category. Instead, the skills they referenced were more operational in nature, including technical and communication skills and skills associated with satisfying customer needs. The 3 researchers were the only members of the sample to refer to the use of research skills.

Given the nature of the data collected on skills, it would be inappropriate to draw firm conclusions from it. There are, however, a few points worthy of mention.

Firstly, it is notable that whilst IT Personnel explained that it was important for IT managers to be successful in communicating with and satisfying internal customers, they did not stipulate the need for wider business awareness skills. Similarly, whilst 7 interviewees referred to the importance of customer communication and satisfaction, very few (3) spoke about business awareness skills, and only one researcher (code 5) referred to the importance of making his research useful for meeting business needs. The lack of emphasis on business awareness may be due to the fact that the core business of IT Co is information technology.

Secondly, most of the skills stated by IT Personnel as important for IT managers to have were referred to by the sample, including those on non-management grades. Only 3 of the skills referred to as important by IT Personnel were not mentioned by the sample. These included the

⁶² It should be noted that within Table 9.4, phrases or words which most accurately describe the collective statements made by the IT interviewees are used. For example, 'customer communication and satisfaction' describes each of the statements made by 7 interviewees describing these skills and activities. Conversely, the *actual* words used to describe the skills sought in IT managers by IT Personnel are shown within the table. Thus, whilst the words may not accurately match, the researcher has interpreted a match to exist from the complete set of statements made.

ability to delegate, creative and flexibility skills. In addition, it should be noted that no distinctive gender patterns emerged from the data; both men and women in the sample appeared to use similar skills.

Thirdly, whilst IT Personnel noted that it was not essential for support staff to have a technical background, 4 men and 4 women (2 support managers, 3 researcher managers and 3 non-management support staff) referred to their use of technical skills.

Table 9.4 Skills Used by IT Managers Compared With Those Sought by IT Personnel

| Skills Sought by IT Personnel | | Skills Used by the Sample | Code | Hierarchical Level | Male / Female |
|--|----|---------------------------------------|----------------------|---------------------------|--------------------|
| technical credibility | -> | Technical Skills* | 1,2,4,5,7 9,10,11 | 10,11,6,10,5, 11,11,9. | M,M,F,M,F F,M,F |
| | | Research skills* | 2,5,9 | 11,10,11 | M,M,F |
| Business: | | Business: | | | |
| Be customer focused, strong communication skills | -> | Customer Communication & satisfaction | 1,4,5,6, 8,10,11 | 10,6,10,12, 12, 11, 9 | M,F,M,M, F,M,F |
| | | Business awareness* | 1,5,7 | 10,10,5 | M,M,F |
| | | General Management: | | | |
| | | Managing financial resources | 3,6,12 | 11,12,11 | F,M,M |
| | | Human resource management* | 1,3,6,10, 12 | 10,11,12, 11, 11 | M,F,M,M, M |
| strong team management skills | -> | Project management* | 3,6,8,12 | 11,12,12,11 | F,M,F, M |
| | | Setting & reviewing objectives | 1,3,10, | 10,11,11, | M,F,M |
| | | Multi-tasking skills | 8, | 12, | F |
| directing skills | -> | Leadership | 6,8 | 12,12 | M,F |
| | | Influence | 8 | 12 | F |
| be quality focused | -> | Process improvement skills | 8,10 | 12,11 | FM |
| | | Problem solving | 10 | 11 | M |
| | | Negotiating | 8,12 | 12,11 | F,M |
| ability to delegate | | | | | |
| creativity | | | | | |
| flexibility | | | | | |

Key: M = male F = female H/L = hierarchical level

***Technical skills:** technical application skills, hands-on working with building computer machinery, installation and repair of computing machinery, software and hardware design.

***Research skills:** conducting literature reviews, analysis of information, interviewing, writing up results, publishing, being able to see simple solutions to problems.

***Business awareness skills:** understanding business needs, identifying appropriate research for the business.

***Human resource management skills:** conducting performance evaluations, ranking, overseeing career development of staff, mentoring, empowering others, managing personal relationships.

***Project management skills:** in addition to managing financial and human resources, skills include scheduling, prioritising, reporting, team management and planning.

In contrast to the IT Personnel view, 9 interviewees felt that technical skills were essential in enabling them to conduct their present job role effectively. Table 9.5 summarises why the interviewees felt technical skills were or were not essential. It shows that 8 of the sample, 3 of whom were support managers, stated they could not complete their jobs without technical skills.

Of the 3 managers who stated that technical skills were unnecessary in their job role, 2 were women. One woman support manager (code 3) who did not refer to the use of technical skills in her job added that she viewed them as unnecessary to be effective in her current role. However, this manager had come from a technical background with technical qualifications. The distinction she made between the need for, and use of, technical skills was that:

"I think the technical skills are crucial to have credibility, but not to do the job."
(code 3, female, grade 11)⁶³

Table 9.5 IT Managers Perception of the Need for Technical Skills

| Code | H/L | M/F | Need for Technical Skills | Rationale |
|------|-----|-----|---------------------------|---|
| 1 | 10 | M | Yes | demanding by job role |
| 2 | 11 | M | Yes | demanding by job role |
| 3 | 11 | F | No | needed for credibility but not in job |
| 4 | 6 | F | Yes | demanding by job role |
| 5 | 10 | M | Yes | demanding by job role |
| 6 | 12 | M | Yes | demanding by job role & because the company values technical skills |
| 7 | 5 | F | Yes | would not have gained access to company |
| 8 | 12 | F | No | not demanding by job role |
| 9 | 11 | F | Yes | demanding by job role |
| 10 | 11 | M | Yes | needed in order to help staff solve problems |
| 11 | 9 | F | Yes | demanding by job role |
| 12 | 11 | M | No | not demanded in current job role |

Key: M = male F = female H/L = hierarchical level

Another woman (code 9), who also believed that technical skills were unnecessary in her role, but did not come from a technical background, referred to the fear she sometimes experienced in making technology-based decisions. Notably, she also believed that she was unusual in not having a technical background as an IT manager within IT Co:

"Sometimes it's a little bit frightening because you may find yourself having to make a decision only through the information that you've been able to glean through those in your organisation, and not having any knowledge yourself. ... That's a little bit scary at times, but also rewarding, in that the people who are assisting you in saying this is the best thing, and I say OK - that makes

⁶³ This view reinforces remarks made by participants during interviews explaining the IT Co culture which was described as valuing technical skills and knowledge (section 9.1)

them feel they've contributed. ... They can't drag me down because I'm too stupid as far as the technology goes, so they know they have to decide for themselves, they have to work it through and I will give them any encouragement, support or resources they need.I'd say I'm probably a bit more unusual.... by and large my peers have more technical ability than I have, and I'd say they are individuals who have come up through the IT organisation and probably had, at some point, an individual contributor role that was of a technical nature. Being that I came from another financial background, not technical, is a bit unusual. " (code 9, female, grade 11)

This section has shown that a fairly good match exists amongst the sample between the skills the sample use on a daily basis and those sought by IT Personnel. However, less unity exists in relation to the perceived need for technical skills. Despite the assertion by IT Personnel that technical qualifications and background are not essential in support roles, 2 support managers and 3 non-management support staff referred to their daily use of technical skills. In addition, the majority of the sample support staff felt that technical skills were essential in their roles and, if not essential, then important to possess (given the value placed on them by the IT Co culture).

9.6 Career Progression

This section compares men and women's experiences and perceptions of career progression within IT Co. It begins by explaining the formal career progression procedures practised within the company. The skills and attributes looked for in progressing IT managers, referred to as career progression characteristics here, are also described. Any differences between the formally stated procedures and characteristics, and interpretations of them by the sample, are highlighted. Factors which may lead to such differences, and the effect they may have on IT managers' career progression are explored.

9.6.1 Formal Career Progression Procedures and Characteristics⁶⁴

IT Co have a career progression policy which states that:

- with their manager's appropriate guidance, leadership and support, each employee must accept responsibility of his/her own career progression;
- all employees have access to information on new opportunities, but each individual is responsible for contacting the relevant people;
- employees should make themselves aware (through discussions with their manager) of possible career progression opportunities.

Individuals are supported in managing their own careers through the availability of different resources, including:

- the provision of development programmes and workshops;

⁶⁴ Information contained within this section has been drawn from an interview conducted with a representative of IT Co Personnel and personnel policy documentation provided by the company.

- the Occupational Personal Questionnaire administered by the Human Resources department. This is a tool which helps individuals explore their preferred style of working, where-upon they can begin to review alternative career opportunities that may be open to them;
- seminars where people are occasionally invited to talk about their own career paths. These are publicised via e-mail.

In understanding the formal career progression procedures operating within IT Co, 4 key elements should be considered:

- i) the dual career ladder;
- ii) the job family book;
- iii) the ranking procedure;
- iv) the promotions review group.

i) The Dual Career Ladder

Until 1995, the technical career ladder had only 2 management grades, 10 - 11, whilst the management career ladder had 5, 10-14. Technical managers under this system began to complain that progression for them was limited unless they transferred to the managerial career path. In order to ensure technical staff could develop further without having to transfer career paths and undertake staff management responsibilities, in 1995 IT Co extended the technical career ladder to include grades up to 14. Consequently, a distinction is now made between a member of technical staff - grades 10 and 11 and a senior member of technical staff — grade 12.

ii) The Job Family Book

The job family book contains detailed descriptions of the skills and range of responsibilities associated with each job within IT Co Labs in the UK. This book provides essential guidance in progressing individual's careers through re-grading and appointments to new jobs.

Within both managerial and technical career paths, roles as an individual contributor are referred to within the job family book. This denotes the expectation that an individual will undertake a particular task or tasks, and in such a way that they themselves have made an "*identifiable contribution*" to their area of work. On the management career path, the expectation of an individual contribution is applied to jobs up to management grades (below grade 10), at which point staff management responsibilities take over in importance. On the technical career path, however, where there is no requirement to manage staff at the management level, the expectation of individual contributions is applied up to the most senior grade, 14.

iii) The Ranking Procedure

The ranking procedure adopted by IT Co effects pay more directly than career progression, but is nevertheless an important part of the overall career progression process as an individual's ranking level will be referenced when considering an individual's career progression. Twice a year, an

individual's immediate manager will evaluate his/her performance. Performance is reviewed against objectives which have been agreed and set jointly by an individual and their manager. Each employee is awarded a ranking grade between 1 and 5 (5 being the highest), depending on their performance. A recommendation for ranking grade is made by the employee's manager to a group of senior managers referred to as the Review Group⁶⁵. The Review Group considers the performance of each individual of the same grade. Thus, ranking is awarded not on the basis of how an individual performed compared with their own past performance, but how they performed compared with peers on the same grade.

It should be noted that a high ranking (5) does not automatically secure career progression. This can be gained either by applying for a different job on a higher grade, or by taking on a more senior position in an existing post because the post's roles and responsibilities have increased. In applying for a new job, an individual will be interviewed and assessed in light of the new job description skills and task requirements. It is normal in this case for their ranking and performance evaluations to be taken into consideration.

iv) The Promotions Review Group

In order to progress to a higher grade in an existing role, an individual's manager will make a recommendation to a Promotions Review Group⁶⁶. Although the line manager makes the proposal, an individual can request that the recommendation for progression be made. Grade changes are considered by the group twice a year after the ranking process has been completed.

The skills and attributes looked for in progressing managers on both career paths are strictly guided by the job family book. IT Personnel stated that it was therefore appropriate to regard the skills referred to as sought in IT managers (Figure 9.2) as also applicable to those sought when progressing managers. However, IT Personnel stressed that at more senior management grades on the technical career path, it is important to be able to push technical boundaries and challenge technical recommendations made by US Head Office. Likewise, the ability to operate at a more strategic level becomes increasingly important as employees progress to senior levels on the management career path.

9.6.2 IT Managers' Interpretations and Experiences of Career Progression Procedures

When asked to explain how an individual progressed their career, responses varied in the degree to which aspects of the formal career progression procedures — re-grading, Promotion Review Group and applying for a new job — were referred to. No interviewees referred to the career development policy or support structures described by IT Personnel.

⁶⁵ The Review Group is made up of the Head of IT Personnel, functional managers from each of the labs and the Head of labs.

⁶⁶ The Group consists of the Head of IT Personnel and the three lab Directors.

Table 9.6 shows that only 5 interviewees explained about each aspect of re-grading, the Promotion Review Group and applying for a new job in order to progress their careers. Three of these respondents were women and all but 1 were at grade 11.

Table 9.6 Sample IT Managers Reference to Formal Career Progression Procedures

| Code | Hierarchical Level | Male / Female | Referred to Re-grading | Referred to Promotion Group | Referred to Career Progression Via New Post |
|------|--------------------|---------------|------------------------|-----------------------------|---|
| 1 | 10 | Male | NO | NO | YES |
| 2 | 11 | Male | NO | NO | NO |
| 3 | 11 | Female | YES | YES | YES |
| 4 | 6 | Female | NO | NO | NO |
| 5 | 10 | Male | NO | NO | YES |
| 6 | 12 | Male | NO | NO | YES |
| 7 | 5 | Female | NO | NO | YES |
| 8 | 12 | Female | YES | YES | YES |
| 9 | 11 | Female | YES | YES | NO |
| 10 | 11 | Male | YES | YES | YES |
| 11 | 9 | Female | YES | YES | YES |
| 12 | 11 | Male | YES | YES | YES |

It is interesting to note that 1 woman, just below management level (grade 9) knew about each of the career progression aspects. Four interviewees (3 men & 1 woman) only referred to applying for a higher graded job in order to progress. Just 2 respondents, 1 man and 1 woman (codes 2 & 4) failed to mention any of the formal career progression procedures in their response. They were, however more informative about the ranking process and performance evaluations. This may have been due to the fact that neither of them had progressed in grade since joining IT Co, but had experienced the performance evaluation and ranking processes. One of these respondents (code 4) on a more junior grade (6) stated she thought that a high ranking would lead to career progression, although IT Personnel was quite clear that this was not the case:

"So it's (career progression) really through the ranking process as far as I can gather. You get talked to about every other week about ranking and grading and personal evaluation and this type of stuff." (code: 4, female, grade 6)

Statements made about formal career progression procedures provided an insight into how interviewees had experienced the procedures in practice. Although interviewees were aware of at least one aspect of career progression procedures (Table 9.6), there was a common perception that in practice, different procedures, not referred to by IT Personnel, also operate (Table 9.7).

The majority of women managers (4) and half the men in the sample began their careers in non-IT related jobs. Of the 7 managers who started their careers outside IT, 2 women and 1 man began work with Retail Co within stores and progressed to other positions within the commercial side of the company. Thus, these managers in particular fit with the attributes of “*some experience within stores*” and “*not necessarily from a technical background*”, highlighted by Retail Co as attributes sought in IT managers (Table 8.3)

Table 8.3 Career Path Prior to IT Entry

| Code | M/F | H/L | Career Path Prior to IT Entry | Date |
|------|-----|-----|--|----------------------------------|
| 1 | F | 5 | sales assistant; merchandise distributor; distribution team leader; distribution senior team leader; assistant distribution manager. | July 1981 - July 1988 |
| 2 | F | 4 | store management trainee; store departmental supervisor; store personnel management trainee; assistant personnel manager. | September 1975 - September 1981 |
| 3 | F | 5 | NONE | ----- |
| 4 | M | 3 | Store management trainee; store departmental manager; store assistant manager; trainee merchandiser; merchandise manager; distribution manager; training and development manager; purchasing systems user project manager. | September 1967 - December 1991 |
| 5 | M | 6 | NONE | ----- |
| 6 | M | 6 | Trainee chartered accountant. | Sep 1987 - Sep 1988 |
| 7 | F | 6 | Trainee chartered accountant; trainee patent agent. | October 1986 - June 1990 |
| 8 | M | 5 | NONE | ----- |
| 9 | M | 6 | Apprentice technician engineer; aircraft design technician. | September 1978 - September 1983. |
| 10 | F | 3 | Insurance clerk; medical clerk; payroll clerk. | 1967 - 1969 |
| 11 | F | 5 | NONE | ----- |
| 12 | M | 6 | NONE | ----- |

Key: M = male F = female H/L = hierarchical level Sep = September

8.5 IT Managers' Skills and Attributes

Table 8.4 compares the skills and attributes sought by IT Personnel with those the sample IT managers described they used in their current job roles. This table can only provide an insight into the extent to which IT managers are currently using the skills highlighted by IT Personnel, as it is unlikely that the managers referred to every skill involved in their job within their responses. In most cases it is more probable that they referred to skills they used most frequently or most recently before the interview. Nevertheless, overall there appears a fairly good match, with 11 of the 15 skills and attributes identified by IT Personnel referred to by the managers. Almost all of the managers (8) also referred to the importance of communication, which was not referred to explicitly by IT Personnel.

Table 8.4 Skills Used by IT Managers Compared With Those Sought by IT Personnel

| Skills Sought by IT Personnel | | Skills Used by IT Managers | Code | M/F | H/L |
|---|-----|---|--------------------------|------------------------|------------------------|
| Planning & organising for yourself & others | --> | Organising & planning | 1,3,4,7 9,11,1 2 | F,F,M,F, M,F,M | 5,5,3,6 6,5,6 |
| Analytical | --> | Analytical | 1,5,7,1 | F,M,F,F | 5,6,6,5 |
| Leadership | --> | Leadership | 11 | F | 5 |
| Teamwork | --> | Team management | 2 | F | 4 |
| Assertiveness | | | | | |
| Decisiveness | --> | Taking judgements | 10 | F | 3 |
| Time management | --> | Time management | 5 | M | 6 |
| Financial management | --> | Financial management | 2,3,4 | F,F,M | 4,5,3 |
| Staff management and development | --> | People management / coaching | 3,4,10, 11,12 | F,M,F, F,M | 5,3,3, 5,6 |
| | | Communication | 1,2,4,5 7,8,10, 12 | F,F,M,M F,M,F, M | 5,4,3,6 6,5,5, 6 |
| | | Managing users | 4,10 | M,F | 3,3 |
| Ability to understand the commercial business | --> | Understanding the commercial business | 10 | F | 3 |
| Ability to take the IT Group forward | --> | IT direction / forward thinking | 2,9 | F,M | 4,6 |
| Ability to know how IT projects fit into the business | --> | Understand what the project does for the business | 4 | M | 3 |
| Not necessarily from a technical background | | | | | |
| Ability to work in mixed IT-user teams | | | | | |
| Ability to work closely with the business | | | | | |
| | | Influence | 2,9 | F,M | 4,6 |
| | | Diplomacy | 8 | M | 5 |
| | | Humour | 8 | M | 5 |
| | | Selling | 4 | M | 3 |
| | | Motivation | 1 | F | 5 |
| | | Honesty | 6 | M | 6 |

Key: M = male F = female H/L = hierarchical level

Table 8.4 also shows the gender distribution in managers' use of different skills. Overall, there is almost no difference in the skills referred to by the men and women managers. The exceptions are that more women than men referred to their use of analytical and financial management skills. Where only men or only women referred to a skill, in most cases, those described by women managers were more in line with the ones defined by IT Personnel as important.

It is notable that none of the managers referred to the use of technical skills in their current job role. This perhaps endorses IT Personnel's view that a technical background is not essential to effectively fulfil the IT management role. This view was tested amongst the IT managers interviewed. The test proved somewhat difficult as interpretations of technical skills and experience varied amongst the sample.

As Table 8.5 shows, 5 managers viewed their previous programming roles as developing technical skills. Similarly, earlier job roles as a technician or a technologist were also perceived as providing 2 other managers with technical skills. In contrast, 1 manager viewed communicating with IT people as constituting technical work and another perceived managing IT people as demanding technical skills.

However, overall there was little difference between the men and women IT managers interviewed in their perceptions of whether they had developed technical skills in previous job roles. Just 1 male manager (code 8) believed he did not possess technical skills as he did not have programming experience.

Table 8.5 IT Managers' Perception of and Experience With Technical Skills

| Code | M/F | H/L | Technical Experience | Perception of and Experience With Technical Skills |
|------|-----|-----|----------------------|--|
| 1 | F | 5 | √ | In previous commercial role viewed communicating with IT people as technical |
| 2 | F | 4 | √ | In previous role as programmer undertook technical work. |
| 3 | F | 5 | √ | In previous role as programmer undertook technical work. |
| 4 | M | 3 | √ | In present role as IT development manager managing the technologists is perceived as demanding more technical skills. |
| 5 | M | 7 | √ | In previous role as analyst programmer undertook technical work. |
| 6 | M | 6 | √ | In previous role as analyst programmer undertook technical work. |
| 7 | F | 7 | √ | Previous role as information technologist was viewed as technical as had to " <i>delve into the programs</i> " in order to solve user problems. |
| 8 | M | 5 | X | Previous role as IT operator, no programming experience, therefore did not view himself as technical. |
| 9 | M | 6 | √ | In previous role as analyst programmer undertook technical work. |
| 10 | F | 3 | √ | In previous role as programmer undertook technical work. |
| 11 | F | 5 | √ | Previous role as sizing technician undertook technical work. |
| 12 | M | 6 | √ | Previous role as IT operator viewed as non technical. Later, as a Senior operator and Team leader viewed as more technical because involved with solving technical problems. |

Key: M = male F = female H/L = hierarchical level X = no technical experience
√ = technical experience

In reflecting on whether a technical background was important in enabling IT managers to conduct their jobs effectively, just over half of the respondents (7) believed there was no need for an IT manager to have had a technical background (codes 1, 2, 4, 6, 8, 9 & 11). The managers believed that previous technical experience and skills were unnecessary if you were able to ask

the right questions and ensure the necessary technical skills were represented amongst team members:

"I think the technical skills that you need are - you need to understand what are the right questions to ask - you don't have to understand the technology. You do have to understand that there are certain questions you should ask to the technologist.I think most people when they come into IT are concerned about technology and will I have to understand bits and bytes? and the answer is I don't think you do but you do need to know how to manage technology and that's a different skill." (code 4, male, level 3)

Indeed, 1 manager pointed out that technical skills may act as a disadvantage in an IT management role:

"I'm reasonably confident with it but I don't think it's essential. In fact one of the criticisms of me - one of the things it can do and one of the things that will be quite tricky for a lot of technical managers, is that it can be quite stifling. I've been known to be quite forceful - but my views of the technology are such that if I'm not careful I'll go straight for the answer and what you really will then do is turn people off and disempower them - either just cut right through them or stifle and at worst in a sense completely alienate them. With no technical skill, with a lot of aptitude and with a lot of thought what you should be able to do is achieve a very good answer which is a balanced view. Now in a sense the only thing a good manager needs to have is he needs to have a very good appreciation of what he needs around him to happen so he needs to get that technical knowledge from somewhere." (code 9, male, level 6)

Of the 5 managers that believed it was important to possess technical skills within the IT management role, only 1 woman manager's current job role (code 7) still actively employed technical detail. Both the male managers (codes 5 & 12) and 1 woman manager (code 11) felt technical experience was necessary in order to be able to communicate effectively with technologists and also command respect from team members:

"I don't think you could realistically do it, because you have to offer help and advice and that only comes with experience. You have to understand some technical knowledge before you can give decent advice to others, if you've actually been through it." (code 5, male, level 6)

Three women managers (codes 3, 10 & 11) described having a technical background as in some ways providing them with confidence⁵⁷. For example, as 2 women responded:

"....If you can understand what problems they're experiencing, even though they're using completely different development languages. I understand that and therefore you have that basic understanding of what it is they're trying to do and you're asking them to do. And it allows you to ask them

⁵⁷ One of these managers (code 11) stated that she did not believe a technical background was essential to conduct her job effectively. However, she added that she felt she had found her first management position easier because she had technical experience, and therefore could keep pace with the technical details of the project.

questions that - to challenge what they're doing - whereas if I hadn't had that experience it would be much more difficult. It is important to me".
(code 3, female, level 5)

"...you're still relying a lot on your skills of analysis and programming and understanding the underlying technology - all that is a kind of bedrock and it is even now. That although I am a pure manager now, because you build up this whole great base of understanding - I've used every single bloody technology there is - every type of computer - mini, mainframe, PC, every supplier, ICL, IBM, Microsoft, everything - every language you can think of. You just kind of build up this kind of background of understanding of how these things work, because the same things happen again and again and you always know where the issues are going to be. You know exactly where the issues are going to be - you really have a feel - you don't even have to think about it." (code 10, female, level 3)

The view of just over half the IT managers interviewed, that a technical background is unnecessary to perform effectively in an IT management role endorses the IT Personnel view. IT Personnel confirmed that they expect their managers to *"understand what their people are telling them"* and *"be able to ask the right questions and do the right things to get the knowledge"*, but not necessarily to have come from a technical background. However, it is also important to note that 5 of the managers interviewed expressed the importance of technical experience to help enable them communicate effectively with staff, gain respect from staff or to help their own self confidence. Such concerns help to highlight the possible problems that may be faced by some managers entering IT without a technical background.

In conducting an analysis by gender of the skills and attributes profile of the sample, this section has shown that no significant differences appear to exist between the men and women IT managers. Indeed, slightly more women than men within the sample were more closely suited to the IT management profile, having previously gained commercial experience within Retail Co stores. The women managers described themselves as using similar skills to the men in their current job roles. In addition, more of the skills referred to by women managers closely matched those identified by IT Personnel. Each of the women managers, like the majority of men, had developed technical skills in previous job roles. However, whereas men believed they could have entered IT management with no technical experience, more women felt it was important experience to have gained and aided their self confidence as managers.

8.6 Career Progression

This section compares men and women IT manager's experiences and perceptions of career progression and contrasts these with the formal career progression process described by IT Personnel. It also analyses the extent to which the career progression process supports the development of the skills and attributes Retail Co seeks in its IT managers.

8.6.1 Formal Career Progression Procedures⁵⁸

The expansion of IT during the 1980s led to rapid progression for many IT staff within Retail Co. This had the major effect within the company of forming a bottleneck at middle management levels (band 5) by the beginning of the 1990s. The problem of the bottleneck of staff was approached jointly by IT Personnel and senior management from the IT Group in the early 1990s, who formed a Personnel Forum. The Personnel Forum was established to standardise and rationalise the job profiles within the IT Group and ensure a consistent approach to career progression. As the following description of the Forum will show, it also aims to make the career progression process to middle and senior management levels a more rigorous one.

The Personnel Forum is chaired by a woman IT executive, jointly with the IT Group Personnel Manager and includes a senior management representative from each of the executive areas within the IT group. At the start of each financial year, the Personnel Forum sets up a progression planner for the year. The planner includes a list made by senior managers from each of the executive areas of staff nominated for progression to management level. Each of the progressions are considered during the year. The planner allows the Personnel Forum to look overall at the movement and development of staff from across the IT group and helps ensure staff within an executive area have access to the same projects, development and progression opportunities as staff from another executive area.

Nominations for progression at junior management levels (up to band 6) are put forward initially by an individual's project leader and then agreed by managers within an executive area. Progression to middle management levels (band five and above) is more complicated as individuals require sponsorship. As the band five is at the start of middle and senior management levels, Retail Co Personnel explained that screening measures for progression needed to be more stringent. Thus, in order to progress, an individual requires sponsorship by three executives - an executive from their own area, a user executive and an executive in another IT area. The three way sponsorship is employed by the Personnel Forum for placing checks on the progression being considered. Following this process has led to nominations, not necessarily being rejected, but being followed up more closely. In such cases, the nomination is passed back to the line who are asked to provide examples of how an individual demonstrates particular attributes or abilities. Progression from a band 5 to band 4 are not considered by the Forum as many managers within the Forum are at that level. Instead, the executives consider senior management progressions outside the Forum, jointly with the Chair of the Forum.

The ways in which an individual progressing from band 6 to band 5 may gain three way sponsorship appeared a little vague. It was explained that in a "*normal situation*", for example, if a

⁵⁸ Information on formal career progression procedures and characteristics was gained from an interview with a representative of IT Personnel and personnel documentation provided by Retail Co.

member of staff was working in a system development team, they would be known by their own executive and a user executive. It was suggested by IT Personnel that gaining sponsorship by an executive in another area of IT may arise if an individual has moved from one executive area to another, or if an executive has moved, for example. However, IT Personnel acknowledged that some staff had experienced difficulty in gaining three way sponsorship and that in many ways *"some of it is left to chance"*.

The career progression process within the IT Group was described as being similar to processes operated in other parts of the business. However, IT Personnel acknowledged that in other functions, such as within buying, for example, staff were more likely to move departments or areas on a regular basis and therefore more likely to become known by a greater number of executives.

Thus, a formal structure - the Personnel Forum - is clearly in place within Retail Co to regulate career progression. In contrast, it appears that the processes within the structure - gaining three way executive sponsorship - are less structured and may offer scope for more informal influences to effect successful career progression in practice.

8.6.2 Formal Career Progression Characteristics

In addition to the Personnel Forum which provided a formal structure for career progression, IT Personnel referred to a set of formal career progression characteristics. That is, the skills, attributes and behaviours looked for by Retail Co in progressing their IT staff. Table 8.6 shows how the characteristics cited by IT Personnel largely fits with their picture of the IT manager profile (Figure 8.4). However, the career progression characteristics place less importance on IT managers having commercial knowledge, but does not comment on whether a technical background is sought. In addition, the characteristics highlight the need for individuals to *"be known by other managers within the IT Group"*. This characteristic is perhaps more accurately described as a procedure rather than a skill or attribute necessary for career progression. It reinforces the importance of sponsorship described in the formal procedures and of the informal practical implications of following this procedure. Whilst getting oneself known by other managers does involve skills, such as communication, for example, Retail Co appeared less concerned with how a manager became known. However, concern was expressed that an individual should become known through conducting their job role and not by undertaking activities which were irrelevant to their job.

Thus, whilst sponsorship is a formal requirement for career progression at management level, how this can be achieved in practice and its effects on IT staff seeking career progression appears less clear. Both these effects of career progression procedures were explored during interviews with the sample IT managers and are discussed in the following sections.

Table 8.6 Formal Career Progression Characteristics: Two IT Manager Profiles Compared

| Future IT Manager Skills & Attributes Profile | | Career Progression Characteristics Sought in IT Managers |
|--|--------|---|
| Planning & organising for yourself & others | -----> | Planning & organising for yourself & others |
| Analytical skills | -----> | Analytical skills |
| Leadership skills | -----> | Leadership skills |
| Teamwork skills | -----> | Teamwork skills |
| Assertiveness skills | -----> | Assertiveness skills |
| Decisiveness | | |
| Project management skills | -----> | Project management skills |
| Manage & develop staff | -----> | Manage & develop staff |
| Technical background not essential | | |
| Know how IT fits with the business | -----> | Know how IT fits with the business |
| Ability to take the IT Group forward | -----> | Ability to take the IT Group forward |
| Ability to work in mixed IT-user teams | -----> | Ability to work in mixed IT-user teams |
| Work closely with the business | | |
| Understand the commercial business | | |
| Some stores experience | | |
| | | Be known by other IT Group managers |

8.6.3 IT Managers' Interpretations and Experiences of Career Progression Procedures

The IT managers were asked to explain how career progression worked within Retail Co. Table 8.7 shows how 7 of the 12 managers interviewed referred to the Personnel Forum in responding to this question. However, the extent of understanding of the Forum's role and how it functioned varied amongst the 7 managers. Only the 3 senior managers within the sample appeared to have a thorough understanding of its role and function. Interpretations amongst the middle and junior managers appeared less comprehensive and at times a little confused when compared to IT Personnel's formal explanation. An example of an apparently confused explanation follows:

"I think the main bit they have the Personnel Forum and they have the Managers Forum. Your project leader will tout for his or her team's people. He has done such and such, delivered such and such and I think he should be promoted or get a good salary review. It all revolves around salary review as well." (code 5, male, level 6)

Thus, a split appeared within the sample between upper and lower level managers in their knowledge about the Personnel Forum. It is perhaps to be expected, however, that the more senior managers will have a thorough understanding of the Forum, either from being a member of it or having progressed through it. Nevertheless, the results suggest that the more junior managers had little awareness of the process they would have to go through in order to progress their careers.

Table 8.7 Formal Career Progression Procedures Referred to by the Sample IT Managers

| Code | M/F | H/L | Aware of the Role & Function of the Personnel Forum |
|------|-----|-----|---|
| 1 | F | 5 | NO |
| 2 | F | 4 | YES - thorough understanding |
| 3 | F | 5 | NO |
| 4 | M | 3 | YES - thorough understanding |
| 5 | M | 6 | YES |
| 6 | M | 6 | NO |
| 7 | F | 6 | YES |
| 8 | M | 5 | NO |
| 9 | M | 6 | YES |
| 10 | F | 3 | YES - thorough understanding |
| 11 | F | 5 | YES |
| 12 | M | 6 | NO |

Key: M = male F = female H/L = hierarchical level

Whilst knowledge and understanding of the Personnel Forum appeared scarce amongst the sample, each manager interviewed referred to the key importance of *“raising your profile”*, *“exposure”* or *“networking”* in the career progression process. Profile raising was described by the managers as being known by and thought well of by managers other than your immediate line manager in the IT Group:

“...make sure people know who you are and what you’re doing... your success to a degree depends on who you know as much as what you know.”
(code 1, female, level 5)

“We have this thing called raising your profile - who’s seen me and who likes me because they’ve seen me.” (code 6, male, level 6)

“It’s getting yourself known.” (code 7, female, level 6)

“So not only do I need to be impressing a group of managers and senior systems managers, but also all the IT executives.” (code 8, male, level 5)

“It’s always important for people to look at what you’re doing and think you’re doing a good job.” (code 10, female, level 3)

The perceived importance of profile raising or networking reflects both the formal career progression procedure of three-way sponsorship and characteristic of being known by other IT managers. Thus, whilst the detailed operations and objectives of the Personnel Forum appeared largely unclear in the explanations given by IT managers of how career progression worked, the message conveying the importance of sponsorship was far more evident.

In the formal explanation of career progression procedures provided by IT Personnel, little attention was paid to how sponsorship could be gained in practice. In contrast, the managers interviewed each went into detail about how they approached networking and profile raising. Table 8.8 provides a summary of the descriptions given. The most commonly cited methods of

profile raising was to “create opportunities” to meet managers from other IT areas in order to impress them, and “communicating” with managers outside the scope of their immediate job areas.

Table 8.8 How Retail Co IT Managers Raise their Profiles

| Profile Raising Method | Code | M/F | H/L |
|--|--------------------|-----------------|-----------------|
| Go out of your way to make sure people know who you are & what you are doing | 1,8 | F,M | 5,5 |
| Advertise yourself & your successes | 1,3,5,6 | F,F,M,M | 5,5,6,6 |
| Work on a high profile project | 1,6,7,11 | F,M,F,F | 5,6,6,5 |
| Communicate with managers outside your direct job area | 1,4,7,8,12 | F,M,F,M,M | 5,3,6,5,6 |
| Secure fixed term attachments to different areas/move areas | 5,2 | M,F | 6,4 |
| Be enthusiastic in your job | 6 | M | 6 |
| Create opportunities to meet & impress senior managers | 2,3,4,6,8,10,11,12 | F,F,M,M,M,F,F,M | 4,5,3,6,5,3,5,6 |
| Get a sponsor / mentor outside your area | 6,9 | M,M | 6,6 |

Key: M = male F = female H/L = hierarchical level

Reference was also made by 4 managers to the benefits offered by working on large, high profile projects. Such projects were described as offering opportunities to have contact with users and IT managers from many different areas within Retail Co. IT Personnel confirmed the perception of high profile projects:

“Bigger projects are seen as having more kudos associated with them - there’s a big thing about sexy projects - sexy technology. Sexy projects are the ones that are high profile, there’s lots of shebang about them, they are using the most up do date technology.So sexy projects are the ones with new technologies, that is exciting as seen by the IT industry. But they also are the big ones that have commercial sponsorship that are all singing all dancing.”

However, IT Personnel also believed that the process by which an individual became a high profile project team member was largely informal. Although new large scale projects were often referred to the Personnel Forum for help in establishing the teams, IT Personnel believed that “there are also coffee lounge deals done”. Getting into a high profile project was likely to be influenced by whether an individual had worked with the project leader or manager before and consequently their abilities were known. The problem of elite teams being formed was stopped, IT Personnel believed, by other IT managers refusing to let their best staff go to another team:

“...part of me says you have to allow them (IT managers) to do that (coffee lounge deals) because otherwise you take away their responsibility for their team....which is quite difficult...They’re generally controlled by the rest of the management team who won’t let them continue to get all the best people and will just say no...”

Significant differences did not occur in the types of suggestions men and women IT managers made about how to raise their profile. However, the men cited slightly more ways than the women in how a profile could be raised.

Discussion of career progression practices within the IT Group is not quite complete without some reference to working hours. The managers consistently described the long hours that they worked and that their job demanded, working on average, a 10 - 12 hour day. However, only 2 managers, a man and a woman (codes 10 & 12) linked working hours with career progression:

"I work very short hours for Retail Co - I get here about quarter to nine and I leave here about a quarter to six. I work very short hoursIt's very hard to maintain that position in Retail Co - people will snipe at you the whole time and you have to be absolutely confident and sure of yourself about it to do it. And it's difficult to do it if you have something to lose, but since I don't want to be an executive, I don't have to worry about it. If I wanted to be an executive, I would have to put longer hours in I'm sureI think you need to involve yourself in extra initiatives that you yourself could come up with - especially ones that take you across the business - because you really do need to know a lot of people because you need sponsorship and support from a broad range of people in order to progress" (code 10, female, level 3)

"Your commitment to the job is judged very much by the hours you work. It's important not to be the first to leave at the end of the day and work more than your quota of hours.." (code 12, male, level 6)

Both these managers link long working hours with profile raising. They suggest that longer hours offer opportunities to be involved in activities which may help networking and that they also demonstrate to other managers a high commitment to the job. What is significant about the managers statements is that they suggest career progression may be difficult to gain without working long hours. This undoubtedly has some gender implications. For example, it may be more difficult to work a 10 - 12 hour day if an individual has child care responsibilities. Indeed, the only 2 women managers within the sample with children both referred to their need to work reasonable hours, mainly between 8.30 am and 6 pm.

8.6.4 IT Managers' Interpretations and Perceptions of Career Progression Characteristics

Nine of the 22 skills and attributes perceived by the sample IT managers as important to demonstrate in progressing their careers matched either the characteristics referred to by IT Personnel or the profile of the Retail Co future IT manager (Table 8.9).

Some important skills such as project management, management and development of staff, leadership and analytical skills, although referred to by IT Personnel and by the managers in describing the skills they used in their job role, were not mentioned by the sample IT managers as important in the career progression process. It is possible, however, that *"performance"*, cited as an important characteristic by 3 managers (Table 8.10) encompassed these skills. Also, it may

have been taken for granted by the managers that they had to be good at managing staff and projects in order to be considered for career progression, as the following quotes indicate:

"It's no good being rubbish at your job and networking, that's not going to work" (code 7, female, level 6)

"...It's not enough to do your job and do your job well... we are very much educated to believe that it's not enough to work hard and succeed to get promoted, you have to do lots of other things as well.."
(code 1, female, level 5)

However, the managers did appear very aware of the importance of working closely with business users and acknowledged the importance of creating systems that work effectively for the business and generally being more commercially aware.

Table 8.9 Career Progression Characteristics Perceived as Important by IT Managers

| IT Manager Skills & Attributes | | Career Progression Characteristics Sought in IT Managers | | Career Progression Characteristics Referred to by IT Managers |
|---|----|--|----|---|
| Planning & organising | -> | Planning and organising | -> | Planning and organising |
| Analytical skills | -> | Analytical skills | -> | |
| Leadership skills | -> | Leadership skills | -> | |
| Teamwork skills | -> | Teamwork skills | -> | Teamwork skills |
| Assertiveness | -> | Assertiveness | -> | Assertiveness |
| Decisiveness | -> | ----- | -> | Decisiveness |
| Project management skills | -> | Project management skills | | |
| Manage & develop staff | -> | Manage & develop staff | | |
| Not necessarily from a technical background | | | | |
| Know how IT fits with the business | -> | Know how IT fits with the business | -> | Be concerned with building systems for the business |
| Ability to take the IT Group forward | -> | Ability to take the IT Group forward | -> | Ability to drive IT/Business forward |
| Ability to work in mixed IT-user teams | -> | Ability to work in mixed IT-user teams | | |
| Work closely with business | -> | ----- | -> | Close user communication |
| Understand the commercial business | -> | ----- | -> | Understand the commercial business |
| Some stores experience | | | | |
| | | Be known by other IT managers | | Raise your profile/network |
| | | | | Ability work with all systems |
| | | | | Be portable |
| | | | | Influencing/persuasive skills |
| | | | | Ability to manage upwards |
| | | | | Ability to take on responsibilities of next level |
| | | | | Appearance |
| | | | | Fit in the company culture |
| | | | | Confidence |
| | | | | Ability to manage the politics |
| | | | | Performance |
| | | | | Arrogance |
| | | | | Qualifications |
| | | | | Ability to be ruthless |

Table 8.10 Career Progression Characteristics Referred to by IT Managers

| Career Progression Characteristic | Code | Male / Female | Hierarchical Level |
|--|--------------------|------------------|--------------------|
| ability to work with all systems | 1 | F | 5 |
| being portable | 2, 11 | F, F | 4, 5 |
| communication | 2, 4, 5, 8, 10, 11 | F, M, M, M, F, F | 4, 3, 6, 5, 3,5 |
| influencing/persuasiveness | 2, 3, 6, 7, 8, 10 | F, F, M, F, M, F | 4, 5, 6, 6, 5, 3 |
| managing upwards | 2, 3 | F, F | 4, 5 |
| taking responsibilities of next level up | 3, 8 | F, M | 5, 5 |
| appearance | 3, 8 | F, M | 5, 5 |
| fitting in with company culture | 6 | M | 6 |
| being confident | 3, 5 | F, M | 5, 6 |
| managing the politics | 3, 4, 8, 12 | F, M, M, F | 5, 3, 5, 6 |
| being organised & planning | 4, 10 | M, F | 3, 3 |
| giving a balanced judgement | 4 | M | 3 |
| performance | 1, 7, 8 | F, F, M | 5, 6, 5 |
| assertiveness | 3, 6, 7 | F, M, F | 5, 6, 6 |
| arrogance | 6 | M | 6 |
| strength of character | 6 | M | 6 |
| concerned with systems for business | 6 | M | 6 |
| commercial knowledge | 8, 11 | M, F | 5, 5 |
| qualifications | 8 | M | 5 |
| be trustworthy | 6, 8 | M, M | 6, 5 |
| be focused | 11 | F | 5 |
| be ruthless | 12 | M | 6 |
| good teamworker | 6 | M | 6 |

Key: M = male F = female H/L = hierarchical level

Many of the skills and attributes referred to by the sample IT managers that were additional to those stated by IT Personnel may be described as informal in nature. For example, “*managing politics*”, “*fitting in with the company culture*”, “*having the right appearance*”, “*being ruthless*” and “*confident*” and knowing and adhering to “*the way things get done around here*” are all aspects believed to be important by IT managers in the career progression process, but that can be categorised as informal aspects of an organisation:

“There are certainly things about just looking the part ... about things like self confidence, fitting in with the Retail Co culture” (code 3, female, level 5)

“I think a degree of assertiveness and arrogance - corporate arrogance. You work for Retail Co and you are the best, Retail Co is the best and you perpetuate that with those you meet” (code 6, male, level 6)

“To get on in the business you have to be ruthless. I didn’t used to think that - I used to think it had more to do with your ability. But the reality is that you have to have ambition to succeed - be single minded, let nothing stand in your way - be determined” (code 12, male, level 6)

Conversely, it can easily be seen how some of the other characteristics, although not cited by IT Personnel, are likely to be a more formal expectation of effective job performance. For example, in conducting their roles effectively, it might be expected that a manager has influencing skills,

has an ability to work with a range of systems and therefore be portable within IT and may be able to take on some of the responsibilities of their immediate manager.

It is notable, however, that 3 of the characteristics not referred to by IT Personnel: *“communication”, “influencing” and “managing politics”*, were the most commonly cited characteristics by both men and women managers in the sample (Table 8.10). It is difficult, however, from the sample of 6 men and 6 women IT managers interviewed to see any gender patterns emerging from the characteristics referred to. Some characteristics were referred to only by women or only by men, but not by enough men or women to draw any firm conclusions about differences in their perceptions of the important characteristics.

It is also important to understand why different managers referred to different characteristics. This may be influenced by the way and point at which managers learn about characteristics and procedures. Given the informal nature of many of the characteristics referred to by the IT managers, it may be suggested that their importance is not communicated formally within Retail Co. How messages about procedures and characteristics are transmitted within the company and an analysis of the effect of this on women as compared to men IT managers is explored in the next section.

8.6.5 Development of Awareness of Career Progression Procedures and Characteristics

Each of the managers explained that no formal information on the characteristics needed and the procedures to follow in progressing their careers had been communicated to them. Four men and 2 women had developed understanding by being told information by their line or other managers (Table 8.11). One manager, having been passed over for progression was then told how the process worked:

“Line managers were telling me to network and in fact a lot of pennies dropped at that time. I realised that its no good being very good, sitting on my own being very good at my job if no-one else knows its a very good job, so I started to network and influence and let people know I was doing a good job” (code 6, male, level 6)

Whilst the majority of men gathered information, albeit informally, from their line managers, all but 1 of the women managers said they developed their awareness about the career progression process simply by *“picking things up”* and *“watching and learning”*:

“...and actually, even from a band 6 to a band 5 job...I don't know whether you're formally told but you quickly learn that actually this person is not only going to be promoted on what their line management say but they've got to be compared across the other band 6's across the other areas and you need all the other managers to support this. So I think some of it originally was just - you just pick it up.” (code 3, male, level 6)

Table 9.7 Perceived Career Progression Procedures

| Perceived Procedure | Code | Hierarchical Level | Male / Female |
|--|----------------------------|----------------------------------|-------------------------|
| Manage your own career (put yourself forward) | 1,3,4,9,10,11 | 10,11,6,11,11,9 | M,F,F,F,M,F |
| Be visible | 1,2,3,4,5,6,7,8,9,10,11,12 | 10,11,11,6,10,12,5,12,11,11,9,11 | M,M,F,F,M,M,F,F,F,M,F,M |
| Gain experience in a different part of the company | 1 | 10 | M |
| Make an identifiable contribution | 2,4,7,9,11 | 11,6,5,11,9 | M,F,F,F,F |

Key: M = male F = female

Two women IT managers, 2 non-management women and 2 male IT managers referred to the importance of *"managing your own career"* in the career progression process. This response would appear to be in line with IT Personnel's observation that individuals can put themselves forward for progression, as they should be aware of what the expectations are for that role, through the job family book.

Although IT Personnel asserted that individuals were expected to manage their own careers, guidelines explaining what this entailed, and how it could be approached, had not been developed. The interviewees, however, defined *"managing your own career"* as planning the next moves in a career, making those objectives known to your immediate manager, and knowing the necessary skills and activities which are important to develop in order to reach your career goals. As one male manager explained:

"IT Co says you are responsible for managing your own career.....that can work for you or against you. If you're going to sit around and you're quite happy with where you are, IT Co can say, well, you're obviously content. But if you do want to get up and go, the culture supports that." (code 1, male, grade 10)

The same male IT manager explained that, in managing your own career:

"...the IT Co culture basically supports you. You can apply for anything you like. No-one is really going to say 'don't be silly' - they might think it, but they are honour bound and culture bound to pay you common courtesy." (code 1, male, grade 10)

This manager, however, also noted that not all IT Co staff may be able to take advantage of such a self promoting culture:

"...because their character might not be confident enough or feel comfortable with that..." (code 1, male, grade 10)

The time it takes to identify career progression objectives and work towards them when a current role is highly pressurised and busy, was another problem associated with the self promoting culture highlighted by 1 woman manager:

"It's important to target what you want to do next, which is something that I'm struggling with at the minute.....I find it really tough, one, because I'm so busy to make time to do that it is almost impossible, because it means it will eat even more time out of my personal life. This work life balance is a bit concerning. The second is just having enough time to sit and think what is it I do want to do and therefore who should I be networking with? but it's forcing yourself to put yourself first and making the time, when you're focusing on your objectives that's tough. I feel a lot of responsibility to the organisation that I manage and I feel that, when I know what people need from me to help them be successful, then I'm really focused on that. I tend to focus on that before I look at myself."

(code 8, female, grade 12)

The manager above spoke about her difficulty in not only finding time to manager her career, but her tendency to focus on helping to manage her staffs' careers before her own.

Two research managers and 3 non-management support staff emphasised the importance of making an identifiable contribution in order to progress their careers. However, the research managers also spoke about problems which they felt were associated with identifying individual contributions. The male researcher described how he had become extremely frustrated after working hard on a project and, he felt, not being recognised for it through ranking or career progression. He believed that this was because the type of work he was doing, which was development rather than original technical work, did not qualify as an individual contribution. In addition, he felt that because the work he was doing was for a division of the company that did not have a 'high profile', any contribution was less likely to be recognised:

"What I had done was really just development work which, no matter how important it was to who you were delivering it to, no matter how timely, it doesn't carry the same kind of weight (as original technical work).....So I was delivering something important ,but to the wrong people, and I guess I didn't quite have the political support in the upper regions of the management in the lab."

(code 2, male, grade 11)

The other woman researcher noted the difficulties IT Co was experiencing in identifying an individual contribution, and how it was influenced by the type of projects and stage of work someone was at:

"....the ability to make an impact often depends on where your project is, so if you're at the beginning of the project, as I am now, the ability for me to make an impact on the company is very small, because I'm sitting there reading papers and it's not that my work is of any less quality, it's just how do you make an impact about doing a literature review? On the other hand, if your work is at a stage where you've just developed a prototype and field trials on

it, then you're coming back with a whole story to tell the company. The quality of work in both situations may be exactly the same but one has an impact and one doesn't.." (code 9, female, grade 11)⁶⁷

Closely linked with the issues discussed above, is the concept of 'visibility'. Each of the respondents talked about the importance of being visible when describing their experiences of career progression procedures. Although visibility was described in various ways it appeared overall to imply that it was not sufficient just to do a good job within the organisation; rather that good work, and particularly individual contributions, should be publicised to immediate and more senior managers within an individual's own team, and to managers from other functions:

"Visibility is important, it's no good just to have very good technical skills, you've got to make yourself visible." (code 5, male, grade 10)

"I'm not sure how you define it. You know it when you see it. There will be some people who will go into their office and do their work very quietly and go in first thing in the morning, stay there and go home at the end of the day. There are other people who you will see walking around and talking to people and establishing networks of contacts and taking part in activities which are perhaps aside from their basic job." (code 6, male, grade 12)

"Visibility means being seen by the right people to be doing a good job." (code 12, male, grade 11)

All of the women interviewed and 1 man (code 1) stated that they believed visibility to be linked with achieving career progression. For example, as 1 woman explained:

"If you have had successes in your role which have been visible to those who matter, then you are more likely to be considered for a promotion opportunity." (code 9, female, grade 11)

Four other male managers (codes 2, 5, 10 & 12) described their view that good visibility positively influences the ranking process:

"I should say that the way people are ranked here these days is relative. Which means if you do your job twice as well and everybody does as well, you're going to stay exactly the same. If you do your job just as well as you ever did and everyone else is twice as good, you slip down. To some extent it sets people against one another. And this is where the idea of visibility comes from, you want to make your voice heard above the noise of the background hub bub. You've got to be seen." (code 2, male, grade 11)

"I've suffered on that (visibility) in the past - I've been not ranked up because I was deemed not to be visible enough, which in my case I was seen not to have made sufficient effort to go and talk to senior management, selling what I and my group was doing, not going and talking to people enough." (code 12, male, grade 11)

⁶⁷ Both IT Personnel and this manager (code 9) explained how IT Co was aware of the problems associated with identifying individual contributions and was planning to address ways of solving them.

The ranking procedure, where peers are compared with each other, provided the only indication of where the practice of visibility may have arisen from.

IT Personnel explained that visibility is an inherent part of doing a good job. In this way, visibility is linked with gaining a positive ranking and career progression. However, only 1 male manager (code 6) shared this view. Conversely, the majority of the sample felt that being visible is itself a criteria on which ranking and career progression are judged.

In exploring visibility as a career progression procedure in more depth, respondents described the ways in which they approached making themselves more visible. Overall, there appeared little difference in the number and variety of methods referred to by men and women (Table 9.8).

Table 9.8 Methods Used to Gain Visibility

| Method | Code | Male/Female | Hierarchical Level |
|---|-------------|-------------|--------------------|
| Make sure you are seen to be doing a good job | 2,4,7,12 | M,F,F,M | 11,6,5,11 |
| Tell managers about your good work (sell yourself) | 3,8,9,11,12 | F,F,F,F,M | 11,12,11,9,11 |
| Give presentations | 5 | M | 10 |
| Always talk to people on the level above you | 5,8 | M,F | 10,12 |
| Get exposure to other parts of the organisation | 5,11 | M,F | 10,9 |
| Be part of the social infrastructure of the company | 6 | M | 12 |
| Work on high profile projects | 5,8,11 | M,F,F | 10,12,9 |
| Participate in temporary improvement teams | 6 | M | 12 |

Key: M = male F = female

The most common approaches to gaining visibility involved the sample either ensuring that they were seen doing a good job, or telling peers and senior managers about good work they had done. Whilst both men and women within the sample referred to these 2 methods, twice as many women (6) than men (3) described using these approaches.

One male manager (code 6) felt that being part of the company's social infrastructure and participating in temporary improvement teams both helped broaden networking and visibility opportunities:

"...be part of the social infrastructure as well. It's not just to do the job, but be involved in how the organisation as a whole is operating. For example, quality projects and quality circles which aren't applied formally, but every now and then if an issue is identified a group will be established."
(code 6, male, grade 12)

Giving presentations was a method favoured by 1 of the male researchers (code 5) as a way of gaining visibility at more senior levels. This manager, together with 2 other respondents, also felt that working on 'high profile' projects could usefully facilitate gaining visibility. Such projects were defined as either being regarded as technically leading-edge within IT Co labs, or highly important, for example, in revenue terms for IT Co's core business. As one manager explained:

"Basically there are projects which are seen to be sexy and get a lot of exposure. The projects that tend to be shined upon are the projects which the Centre Director likes because it's good visibility for him. It tends to be projects which are more - like at the moment there's a lot of interest here in the internet and the world wide web, a lot of the projects have been biased towards that and they get exposure. Interestingly the project that I'm working on — the telecomms management one — is not perceived to be sexy. But we still get a lot of visibility because it's something that's leading. Within the labs it's not perceived to be sexy, but its a multi-billion dollar revenue potential for IT Co which is why we're doing this business case at the moment. So it's not a project which is shined upon by our Centre Director, but we still manage to maintain visibility." (code 5, male, grade 10)

Whilst all of the sample emphasised their perceived importance of visibility in the career progression process, fewer men (4) than women (6) explained the methods they used to gain visibility. However, more men (3) than women (2) referred to at least 2 methods of gaining visibility, so that the variety of methods spoken about was almost the same for men (9) as for women (10). This suggests that knowledge about the ways of gaining visibility was spread quite evenly between men and women. However, the most junior interviewees (codes 4 & 7) may have been less aware of the wider variety of methods being used, as they both referred to just one; *"make sure you are seen to be doing a good job"*.

9.6.3 IT Managers' Interpretations and Perceptions of Career Progression Characteristics

Most of the skills and attributes IT Personnel looked for in progressing IT managers were also interpreted as important by the sample (Table 9.9).

Both men and women, management and non-management interviewees perceived technical ability, good management and interpersonal skills to be important to possess and to exhibit in order to progress their careers. Echoing the messages conveying the importance of technical competence in IT Co literature, 1 male interviewee explained that:

"In order to become senior you have two choices, you either become somebody who can manage the use of technology or you become someone who is very highly skilled in a certain technology." (code 10, male, grade 11)

Table 9.9 Career Progression Characteristics Perceived as Important by IT Co Sample

| Career Progression Characteristics Sought in IT Managers | | Career Progression Characteristics Referred to by IT Managers | Code | H/L | M/F |
|---|----|--|--------------------|---------------------|-----------------|
| Credibility in a technical area/ Technical background desirable | -> | Good technical skills | 3,5,6, 7,9,12 | 11,10,12 5,11,11 | F,M,M, F,F,M |
| Be customer focused | | | | | |
| Strong communication skills | -> | Good interpersonal skills | 3,6,8, 10,11,12 | 11,12,12 11,9,11 | F,M,F, M,F,M |
| Strong team management skills, directing skills, ability to delegate | -> | Good managerial skills | 5,10,11, 12 | 10,11,9, 11 | M,M,F,M |
| Be quality focused | | | | | |
| Be creative | | | | | |
| Be flexible | -> | Be flexible | 1,3,5, 9,12 | 10,11,10 11,11 | M,F,M, F,M |
| | | Take initiative | 3,4,9 | 11,6,11 | F,F,F |
| | | Be assertive | 4 | 6 | F |
| | | Be organised | 4,11,12 | 6,9,11 | F,F,M |
| | | Be enthusiastic | 5,7 | 10,5 | M,F |
| | | Be politically astute | 2,3,8 | 11,11,12 | M,F,F |
| | | Be respected | 8,11 | 12,9 | F,F |
| | | Good qualifications | 1, 4,10, 11 | 10,6,11, 9 | M,F,M, F |
| | | Show commitment to the company | 4,5,6, 7 | 6,10,12, 5 | F,M,M, F |

Key: M = male F = female H/L - hierarchical level

Whilst over half of the interviewees (7) had referred to the importance of customer satisfaction and quality in conducting their job roles, none cited either as an important career progression characteristic. In addition, despite the importance formally placed by IT Personnel of IT managers being focused on quality and of technical managers being creative; neither of these characteristics were referred to by the sample.

A number of characteristics which were not referred to by IT Personnel were perceived by the respondents to be important in the career progression process. These included:

- taking initiative within the job role;
- being assertive;
- being enthusiastic;
- showing commitment to the company;
- political astuteness.

Definitions of some of these characteristics are illustrated in the following statements:

'IT Co will reward those who are committed to it. That means if you're prepared to put in the hours, the effort, show that you will put other things

aside for the organisation, that's quite important. The level of expected commitment does increase the higher up through the organisation you progress." (code 6, male, grade 12)

*"They look for people who can help build their company. They want people who are energetic, willing to put their all into something."
(code 7, female, grade 5)*

"I think political astuteness at my level is important, so you know what to say to the right people to make the best impression." (code 8, female, grade 11)

Each of these characteristics appear more informal in nature. That is, not only were they not cited by IT Personnel as formally sought, but judging the extent to which an individual exhibits these characteristics is also likely to be subjective.

Two men and 2 women (codes 1, 4, 10 & 11) also referred to the importance which they perceived IT Co placed on qualifications in the career progression process. As one non-management woman stated:

"I'm on a grade 6 now which basically means I've been to college, done an HND and got qualifications so I can do this role. Dave who works with me, he's been here for 7 years or so and he's a grade 5, but he hasn't been to college, but we do the same job." (code 4, female, grade 6)

Here the interviewee appears to perceive the importance of qualifications as being so strong that a lack of college or University education may prevent a progression taking place. This view was supported by another male manager:

"They certainly look for the right academic background. You get to a certain level and you have to have a degree." (code 10, Male, grade 11)

Whilst this characteristic can be easily and objectively judged, IT Personnel did not state that qualifications were considered in the career progression process. However, as detailed earlier in section 9.1, literature explaining the company's values does refer to the importance placed on education and training. Thus, qualifications, although not stated as a formal career progression requirement, may in practice be an important element, driven by the values within IT Co's culture.

Table 9.9 shows that overall, similar numbers of men and women referred to the same career progression characteristics as those stated by IT Personnel. Indeed, it is difficult to distinguish from the data any distinctive patterns of responses between men or women, or between staff at different levels.

However, it should be noted that women referred to almost twice the number of informal characteristics as the men. For example, 5 women (codes 3, 4, 8, 9 & 11) but no men, perceived taking initiative and being assertive as important career progression characteristics.

Indications of why women appeared more aware or were more forthcoming than men with information about informal career progression characteristics is sought in the way the sample gained knowledge about them. This, together with the effect which knowledge of career progression procedures and characteristics had on men's and women's career progression is explored in the following section.

9.6.4 Development of Awareness of Career Progression Procedures and Characteristics

Each of the sample were asked to explain how they had learnt about the procedures and characteristics associated with the career progression process. Although no distinction was made in the question between formal and perceived informal procedures and characteristics, each interviewee concentrated on how they had learnt of the perceived informal aspects of career progression. In particular they explained how they had grown aware of the importance of visibility in the career progression process.

As Table 9.10 illustrates, the majority of respondents (5 men and 4 women) explained that they had gained information about career progression through experience of either being successful or unsuccessful in progressing to a higher grade, as well as watching peers and senior managers at work. For example, one woman manager said she realised the importance of visibility when she achieved a grade progression through her last job move:

"...I had worked with the people on the programme who were at a fairly high level anyway, and I had known the manager from a previous quality project that he ran and I participated in and contributed. So he knew me from previous work. He knew of me and probably went and looked at my last PE (performance evaluation) but I think it was more from having been acquainted with me on a semi-personal level." (code 8, female, grade 11)

Table 9.10 How Awareness of Career Progression Procedures and Characteristics Was Gained

| Experience | | Observation | Advice | By | | Manager |
|------------|--------------------|---------------|--------|--------------------|---------------|---------|
| Code | Hierarchical Level | Male / Female | Code | Hierarchical Level | Male / Female | |
| 1 | 10 | Male | 3 | 11 | | Female |
| 2 | 11 | Male | 9 | 11 | | Female |
| 4 | 6 | Female | 8 | 12 | | Female |
| 6 | 12 | Male | | | | |
| 7 | 5 | Female | | | | |
| 9 | 11 | Female | | | | |
| 10 | 11 | Male | | | | |
| 11 | 9 | Female | | | | |
| 12 | 11 | Male | | | | |

Three women (codes 3, 8 & 9) but no men explicitly described how they had also gained knowledge about perceived informal aspects of the career progression process through advice

being given to them, either by their own immediate or another senior manager. As one researcher explained:

"I think everybody would say you've got to manage yourself upwards, which means you have to spend time impressing your managers and in fact that's what I've been told I've got to do. So I've been told, your work's of an extremely high quality, it's higher than normal, but what you don't do, you don't go into the lab manager and slap down a piece of paper and say this is where IT Co should be; this is what you should be doing. And I've been told you have to, and the point's been made to me by my manager that people are going in with far less quality data, but they are the sort of people that are prepared to just go in and make a splash, and they don't care whether or not it's built on." (code 9, female, grade 11)

Another woman manager referred to a more formal channel of communication when, at an off-site conference, senior management speakers highlighted the importance of networking in the career progression process:

"...there were a couple of speakers who were talking about the importance of networking, the importance of not being a stranger and not going into an area that you want to work in cold interviewing for a job." (code 8, female, grade 12)

Thus, some distinction appeared between men and women in the way they acquired career progression information, with more women than men relying on advice by a senior manager.

9.6.5 The Effect Perceptions of Career Progression Procedures and Characteristics have on IT Managers' Career Progression

In answering questions on how knowledge of career progression procedures and characteristics was gained, it became apparent that most of the sample had also made decisions about the degree to which they would follow perceived procedures, and attempt to develop the perceived characteristics for career progression. Table 9.11 shows that all but one interviewee described a decision to act on the knowledge they had gained (acceptance). For 4 women and 2 men, this decision was described as also involving some sort of change in behaviour. For example, as 2 managers explained:

"I'm not quite as shy about telling people about how I do things than I was — I was very quiet in the past." (code 11, female, grade 9)

"If my experiences effect me directly, I noticed I became more bolshy and a little more assertive in some ways." (code 2, male, grade 11)

Neither of the managers expressed any difficulty in making the behaviour changes. Conversely, 3 women managers (codes 3, 8 & 9) described the problems they experienced in trying to change because the required behaviours and actions did not come naturally to them. As 2 of the women explained

"I find it (managing own career and visibility) really tough — one because I'm so busy, to make time to do that is almost impossible because it means it will eat even more time out of my personal life....The second is just having enough time to stop and think what is it I do want to do and therefore who should I be networking with. That is fairly tough and it's forcing yourself to put yourself first....I feel a lot of responsibility to the organisation that I manage and I feel that when I know what people need from me to help them be successful, then I'm really focused on that. I tend to focus on that before I look at myself." (code 8, female, grade 12)

"So I've been told, your work's of an extremely high quality, its higher than normal; but what you don't do, you don't go into the lab manager and slap down a piece of paper and say this is where IT Co should be; this is what you should be doing. And I've told you have to, and the point's been made to me by my manager that people are going in with far less quality data, but they are the sort of people that are prepared to just go in and make a splash, and they don't care whether or not its built on. Whereas I tend to be the sort of person that has to have rigorously determined that this is the correct story, and really sorted through, and even then I'm not the sort of person that will try and go in and push it." (code 9, female, grade 11)

For the 2 men and 4 women (codes 2, 3, 8, 9, 11 & 12) who perceived themselves as having changed their behaviour, the motivation to do this appeared to come from their desire to progress their careers. That is, they believed that *not* to change behaviour and adhere to career progression procedures and characteristics may involve forfeiting progression opportunities. It is interesting to note that each of these respondents were managers, or in the case of code 11, just below management level. They did not, in their responses, question the appropriateness of the perceived procedures or characteristics. Difficulty lay only in their ease or ability to make the necessary behaviour changes. Only one respondent, at a more junior level (code 4), questioned the appropriateness of the perceived procedures and characteristics:

"But it's very hard to try and put a line through this visibility thing, trying to show people you're doing a good job and prioritising, putting favourites in, because of the position they hold in the company. It's almost to the point of doing a good job and crawling." (code 4, female, grade 6)

This respondent described a choice of compromise. That is, she attempted to avoid the behaviour changes demanded of her by the perceived informal career progression process, whilst at the same time trying not to jeopardise her progression prospects. It should also be noted that she had not yet tried to gain progression to a higher post, but planned to do so in the coming year. Thus, there is the possibility that in the future, when faced with career progression, that her response may change. Indeed, it is important to note that each of the sample expressed career progression aspirations for their future within IT Co.

Table 9.11 Choices Made by the Sample Following Knowledge of the Perceived Career Progression Process

| Code | Hierarchical Level | Male / Female | Choice |
|------|--------------------|---------------|------------|
| 1 | 10 | Male | Acceptance |
| 2 | 11 | Male | Acceptance |
| 3 | 11 | Female | Acceptance |
| 4 | 6 | Female | Compromise |
| 5 | 10 | Male | Acceptance |
| 6 | 12 | Male | Acceptance |
| 7 | 5 | Female | Acceptance |
| 8 | 12 | Female | Acceptance |
| 9 | 11 | Female | Acceptance |
| 10 | 11 | Male | Acceptance |
| 11 | 9 | Female | Acceptance |
| 12 | 11 | Male | Acceptance |

This section has shown that, whilst no men or women appeared to question the demands made of them by the perceived career progression process, only the women expressed difficulty, and lack of comfort, with making the changes in practice.

9.6.6 The Impact of Equal Opportunities on the Career Progression Process

Each of the sample showed awareness and knowledge of the equality and diversity efforts being made within IT Co, as the following statements show:

"IT Co does promote equal opportunities among minorities and women - the diversity is taking it one step further and being positive about it, and seeing if the people we've got can work better together, and try and motivate the people who leave the workforce for a period of time to come back — there you're talking about the female workforce." (code 1, male, level 11)

"There's a very clear policy on things like diversity, that you should include ethnic groups as much as possible, people with disabilities. IT Co sets targets for each of these groups for how many they want to employ — it tries to be an equal opportunities employer. It won't just say that, it will actually undertake projects and try and encourage it." (code 10, male, level 11)

"I think that we, IT Co, has got a quite clear commitment to improving the level of diversity in the workforce." (code 6, male, level 12)

Despite these efforts, 2 women within the sample (codes 3 & 9), felt that there were policies, attitudes and behaviours within IT Co which equal opportunities had not yet addressed, and which effected the career progression of women. In particular, the woman manager who had 2 children (code 3) felt that IT Co had no provision to help women combine work with child care responsibilities. As the following statement shows, whilst this manager would have liked to have taken a career break, she felt that within IT Co, this would have jeopardised her career:

"Being female hasn't been an issue, more is coming up against the work life balance stuff. I have two girls, I don't think IT Co yet understands, and I don't think this is a personal thing, I think you could ask a lot of people about this, I don't think IT Co yet understands how to provide a flexible enough working environment which allows people to balance doing a good job at work... with also doing a good job at home, and not killing yourself in the process of doing both of those... I came back straight away full-time. I didn't have to, I could have had six months working part-time — that's part of the policy — but I felt that at the time I was on maternity leave, I was doing my project management job and I felt part-time project management is a bit of a no-no really. I was told it wouldn't work. So if, given that I'm going to have to go full-time at some point, let's do it now. That was a personal decision..... Yes, if I'd had a choice, I would have liked to have taken some time off... but I don't think IT supports that because we don't understand in IT Co, certainly IT Co doesn't afford you the opportunity of taking a carer break at all, at least not on the basis that you have a guaranteed job to return to. So effectively you can leave, that's all it amounts to. And I felt that it had taken me nine years before I had my little girl after leaving college to get where I'd got and I could wipe that all out by taking two years off. So I felt it was a big threat."
(code 3, female, level 11)

Whilst this manager acknowledged that because information technology is a fast changing field from which it may be difficult to take time out, she felt this was less applicable at the management level:

"But I think certainly in IT it's not a profession where you would want to be out of it for a long time. I think the company would have to come up with some fairly clever training programme. At the management level I don't think that would fundamentally be impossible to do. I think it would be more difficult at the detailed technical level, but at the management level I think it would be really possible because you're asking me, do I really need those technical skills to do my job, and I think the answer's no, you just need a basic understanding of them. The people who work for you have those technical skills." (code 3, female, level 11)

Indeed, she added that when working full-time, the attitudes of her immediate manager, which she felt were unsympathetic to her child care responsibilities, made combining work and family more difficult:

"The fact that I've got a fixed time when I have to leave to go to nursery or something like that. One of the conflicts I've had with my manager over the past year is that I've told him constantly, I will have to leave here at half past five, but I start work at a quarter past eight, I'm only contracted to work 39 hours, I never have a lunch hour, so therefore I've worked more than my hours by far. I have access to a computer from work which I take home with me every night downloading my mail. I work at home as well. So I have provided more than IT Co can expect in terms of hours as do 90% of IT Co staff, but why does he have to call a meeting at 5 o'clock every night? That is just putting me under unnecessary pressure, that's not respecting other people's needs." (code 3, female, level 11)

In spite of these attitudes and the lack of policy within IT Co directed at combining work and family life, it is interesting to note that this manager had recruited a part-time member of staff. In some ways, as the following statement indicates, she was perhaps trying to change IT Co through example:

"I've got somebody in my team who works three days a week, which I feel positive about. I chose to hire somebody from the outside market who only wanted to work three days a week. I thought that was quite a good step forward." (code 3, female, level 11)

The other woman manager (code 9) felt that some IT Co information technology managers perceived men and women differently and did not always take the career aspirations of women technical staff as seriously as men's:

"So I had a lot of problems trying to get a permanent job here. I strongly suspect the fact that I was a woman was an issue. When I say that, I don't think the men consciously thought it was an issue and thought, she's a woman we won't give her a job. But I do think they weren't taking me as seriously as if I was a male candidate." (code 9, female, level 11)

Thus, despite IT Co's comprehensive programme on equal opportunities, and diversity in particular, it appears that the way in which the attitudes and behaviours of some staff may effect the career progression of IT managers has not yet been tackled. It appears that there may also be a need to consider specific policies that will enable women to take career breaks and return, and to combine work and child care responsibilities more easily.

9.7 Summary

This section highlights 2 factors effecting men and women IT managers' career progression:

- the influence of corporate culture on career progression;
- the relationship between career progression policy and practice.

Whilst overall, men and women within the sample were educated to similarly high levels, more women (5) than men (3) had gained IT qualifications. This result was particularly interesting, as 5 of the 6 women held support, rather than technical research roles. IT Personnel had stated that, whilst technical qualifications and background were desirable in IT support roles, they were not essential. This policy view in many ways contrasted with cultural messages conveyed within IT Co. Written material from the company, and statements made by the interviewees, emphasised the importance placed on technical skills and qualifications within the company. Thus, whilst Personnel policy may have allowed for IT support managers to be developed from non-technical backgrounds, it is possible that the culture of the organisation may have been forming barriers to this happening in practice.

Most of the sample, particularly those that had experience of the career progression process, appeared to know and understand the formal procedures described by IT Personnel. Therefore, formal policy appears to have been communicated effectively. However, interviewees also included reference to additional, informal career progression procedures in their responses. In particular, managing your own career, making an identifiable contribution and being visible were perceived as essential to follow. Whilst IT Personnel endorsed the need for staff to manage their own careers, guidance on how this should be approached had not been developed. Making an identifiable contribution was also a formally stated criterion for technical managers and non-management managerial career path staff. Whilst IT Personnel was aware that experience suggested objectively judging this criteria was proving difficult in practice, ways of dealing with this were yet to be considered. IT Personnel was also aware of the concept of visibility, but viewed it more as inherently linked with good job performance, than a separate activity in which career progression decisions were partly based.

The methods used to gain visibility provided indications of how, in practice, formal policies appeared to be interpreted and followed. Although no major gender difference arose from the data, it should be noted that men did seem to be using a wider variety of methods to gain visibility than women, and IT managers overall a greater number of methods than non-management staff. Whilst a good match appeared between formally stated career progression characteristics and those referred to by interviewees, more informal additional characteristics were described by the sample, which were perceived as important to possess and exhibit in the career progression process. These characteristics, which included skills such as being politically astute and showing commitment to the company, were more frequently referred to by women than by men.

It was difficult to glean from the data why more women than men referred to informal characteristics, or why the men appeared to use more and varied methods of gaining visibility than the women. Both appeared to learn about informal characteristics and procedures in a similar way, either from experience and observation or, in the case of 3 women managers, through advice from senior managers. A difference did arise in how managers explained they followed informal characteristics and procedures. Whilst men and women both felt they had had to change their behaviour in order to follow perceived informal career progression procedures and characteristics, only women described this process as being particularly difficult for them to carry out.

Section 3: Analysis and Conclusions

Chapter 10 - Analysis of Research Results

10.1 Introduction

This chapter provides an analysis of results arising from the questionnaire and four case studies.

The analysis is developed under four major headings:

- the representation of men and women in IT management;
- the role and importance of IT technical training and experience;
- the theory and practice of IT managerial career progression;
- the role and impact of equal opportunities.

Each heading is worked through in four stages, namely:

- defining the heading and placing it in the context of existing literature and theory;
- reviewing the extent to which the research evidence reflects, reinforces or negates assertions or adds new findings to existing literature and theory;
- suggesting possible explanations for the results;
- considering the implications of the results for the development of the theoretical framework and the career progression of women and men IT managers.

The theoretical framework developed from the literature review was employed in working through each of the above stages of analysis. In this way, the applicability of the theoretical framework to understanding the research question could be tested and refined. The way in which the theoretical framework was applied is presented in the concluding chapter.

10.2 The Representation of Men and Women in IT Management

10.2.1 Definition and Context

Studies have shown that throughout the development of IT over the past 40 years, women have remained represented in low numbers in the field, concentrated in lower level programming, computer operator and data entry positions (Shirley, 1988; National Computing Centre, 1987; Virgo, 1994; Computer Economics, 1994). One explanation for this picture is women's lack of IT training and qualifications⁶⁸ (to be discussed in depth under the following heading). However, women's low representation in IT management positions appears to have persisted despite the shift in the field from the demand for technical to more general management and business skills since the late 1980s (Couger, 1988; Wysocki and Young, 1990; Hammond and Holton, 1991).

⁶⁸ Higher Education Statistics Agency (HESA) Data Report: Students in Higher Education Institutions, July 1995 show very few women compared with men to be undertaking computer or technical science based subjects.

General management and business are areas where similar numbers of women to men are undertaking degree level education (HESA, 1995).

The literature is concerned not only with the fact that few women are IT managers, but also with the effect the predominance of men in IT management will have on attempts to enable and encourage more women to enter and progress in IT management positions. The cause for concern differs between the liberal and radical approaches in both women in management literature and the gender and IT debate.

The liberal approaches in these two areas of literature argue that, more women in IT management positions, who can act as role models and begin to feminise the masculine work culture, will in turn facilitate further women entering and progressing as IT managers⁶⁹.

The radical approaches to women in management and the gender and IT debate, as well as some arguments within career development literature tend to focus on the negative aspects of the predominance of men in IT management that, they argue, inhibit change. According to these approaches, widespread dominance of men in social, economic and political positions of power, create and define social norms which influence not only the role of women in society, but also their self image, which may lead women and men to view women as unsuited to enter a technical or managerial role (Rossi, 1974; Howe and McRae, 1991; Sekaran and Leon, 1992; Cockburn, 1983; Game and Pringle, 1984). Further, the approaches view male dominated IT divisions and management structures of companies in general, as having the potential to obstruct structural change in favour of women, in order to protect men's own position. According to the radical view, changes such as structures to encourage women to enter non-traditional areas, or to support the combining of work and family life, may at best be ineffective or at worst counter productive (Teknik, 1992; Hirsch and Jackson, 1989; Hacker, 1989).

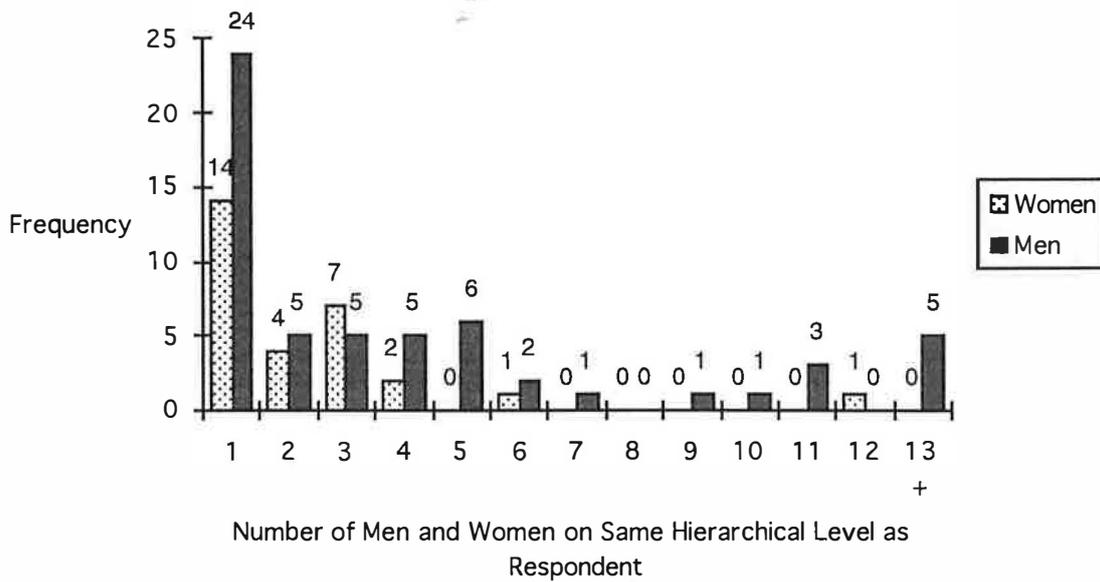
This study contributes to the literature on women in IT management firstly by further building up the picture of the number of men and women in IT management. Secondly, as discussion and analysis under this and other headings in this chapter will show, it will consider the extent to which the liberal and radical arguments described above can be applied in the context of the 4 case studies and questionnaire.

10.2.2 Evidence

The questionnaire results support previous studies indicating that few women compared with men are IT managers (Figure 10.1) and that IT departments are largely dominated by men (Figure 10.2).

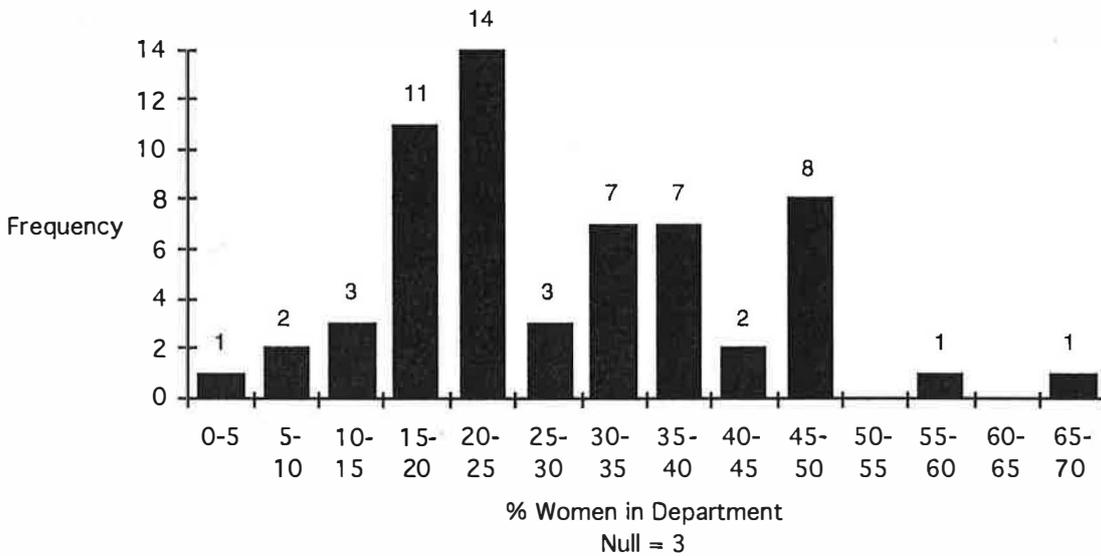
⁶⁹ Both the Women into Information Technology and Opportunity 2000 campaigns carry this message within them.

Figure 10.1 The Number of Men and Women on the Same Hierarchical Level as the Questionnaire Respondent



Null response = 5

Figure 10.2 The Percentage of Women Represented in Survey Respondent's IT Department



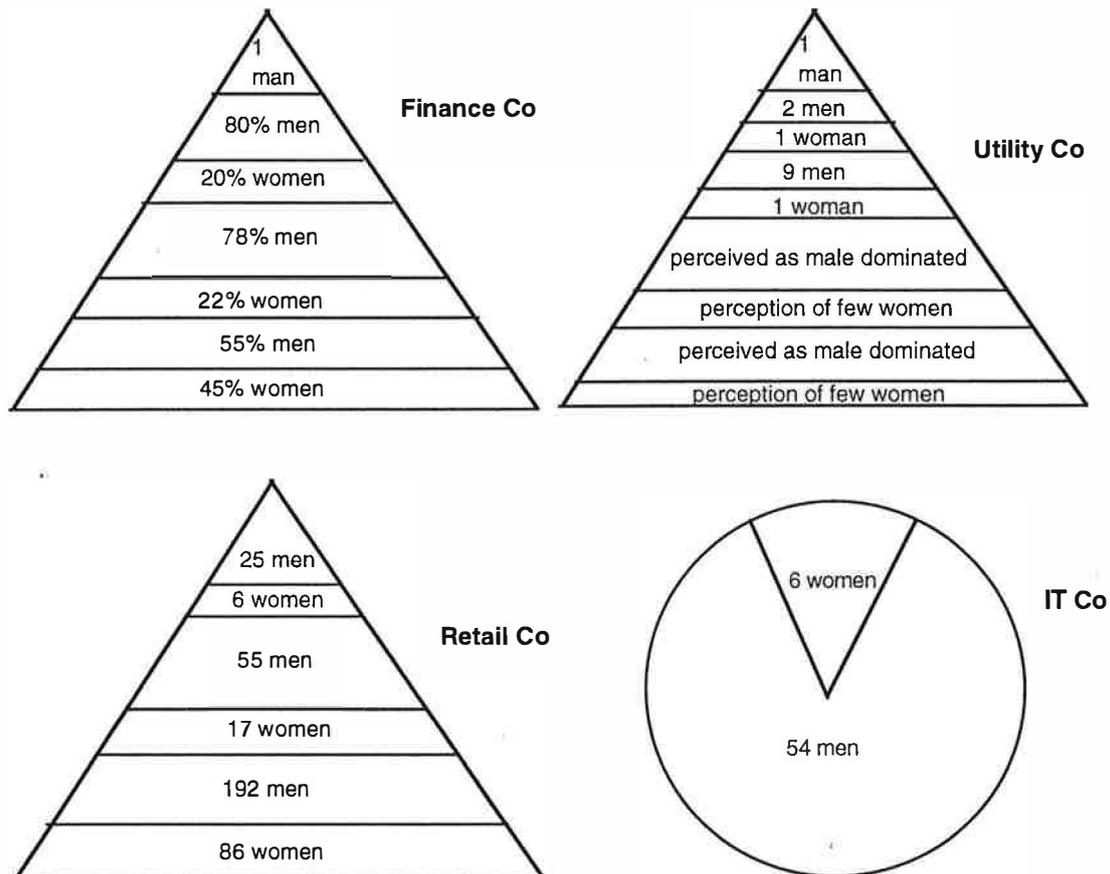
Null = 3

The case companies were unwilling to provide comprehensive statistics of the distribution of men and women in IT and other organisational functions. However, at least some statistics were obtained from each case study company, allowing an impression to be made overall. This impression, as Figure 10.3 presents, suggests that:

- in line with previous studies, very few women are represented at senior IT management positions;

- in both Retail Co and Finance Co, women are better represented at junior management levels, with around half the management positions at this level being held by women.
- conversely, in both Utility Co (impressionistic data) and IT Co, it appeared that few women were represented even at junior management levels.

Figure 10.3 The Number of Men and Women IT Managers Within the Case Study Companies



The evidence above shows the representation of women IT managers to be divided by sector. That is, whilst Finance Co and Retail Co, which have more women managers at junior levels, are based in the service and retails sectors, Utility Co and IT Co, which have few women managers overall, are utility and manufacturing based. This division supports other research showing the proportion of women employed overall in different sectors. Table 10.1 shows that:

- over half of the employees in business and miscellaneous services (including finance and retail sectors) are women;
- just over one third of manufacturing employees are women;
- less than one third of primary utility employees are women.

Table 10.1 Female Workers as a Share of All Employees 1994 - 2001

| Sector | 1994 | 2001 |
|-----------------------------------|-------|-------|
| Primary utilities | 23.9% | 25.2% |
| Manufacturing | 30.1% | 30.2% |
| Construction | 15.8% | 20.8% |
| Distribution, transport etc. | 48.2% | 49.0% |
| Business & miscellaneous services | 53.0% | 53.4% |
| Public services | 67.6% | 71.7% |
| Whole economy | 48.9% | 51.2% |

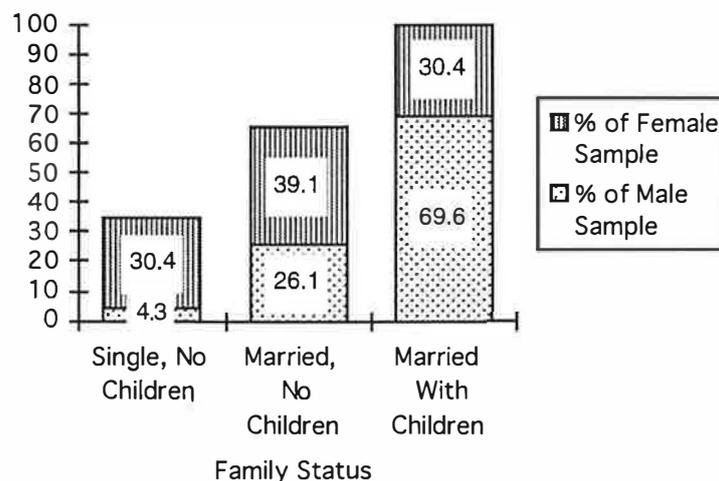
Source: Employment Department

Another factor which sets IT Co apart from the other 3 cases is the emphasis it formally and informally places on the need for technical qualifications and experience. Within the labs, it sought this not only in its technical research staff, but also in its support staff and project managers. Despite advertising efforts, IT Co experienced problems in attracting women with such experience and qualifications to apply for posts. The conclusion IT Co reached and which Higher Education statistics supports, is that there are far fewer women than men with IT qualifications.

In addition to the research evidence showing few women IT managers overall represented in the sample, those that were present were often single, or if married, had no children. Within the case studies (Figure 10.4):

- whilst 69.6% of the male sample overall were married with children only 30.4% of the female sample were married with children;
- a lower proportion of the male sample (26.1%) than the female sample (39.1%) were married with no children;
- whilst about one third of the female sample (30.4%) were single with no children, only a very small proportion of the male sample (4.3%) were in this position;
- the different family status of men and women was similar across the different sectors of the case study companies.

Figure 10.4 Family Status of Case Study Sample IT Managers



Overall the questionnaire also showed a greater proportion of men than women with care responsibilities:

- 66% of the male sample was living with a partner with children aged 16.4 years or below;
- 50% of the female sample was living with a partner with children aged 16.4 years or below.

Given the small proportion of women in the survey sample overall and the difference of results drawn from the questionnaire and case studies, this is an issue that demands a further investigation with a larger sample of men and women IT managers.

10.2.3 Explanations

This study concentrated on the factors influencing the career progression of men and women in IT management, therefore the explanations offered here for why few women IT managers were found rely to some extent on speculation and the benefit of previous research results and conclusions.

It is suggested here that the most useful explanations for the research results lie within the social constructionist literature within both women in management and the gender and IT debate. That is, women's alienation from IT and engineering and manufacturing sectors and their reluctance to enter the field derives historical and cultural construction of technology as masculine (Cockburn, 1983; 1985; Cockburn and Ormrod, 1993; Wacjman, 1991). Masculinity and technology are seen as inter-linked to the extent that technical competence has become viewed as an inherent part of masculine identity (Gill and Grint, 1995). In addition, the women in management literature argues that gender stereotypes within and outside the organisation and inaccurate beliefs about women's ability to manage or lead have led women and men to regard women as unsuited to the role of IT manager (Howe and McRae, 1991; Sekaran and Leong, 1992; Davidson and Cooper, 1992).

The representation of IT as male may deter women managers from other business areas crossing into the field, even though it is the business and management skills IT divisions are now calling for. The image of IT as male and more suited to men, together with its specialised language may also contribute to the undermining of women's own confidence in being able to transfer their business and management skills to the field, having had little experience or education within it⁷⁰.

The nature of IT and the management role may also prevent more women than men entering and progressing within it. The radical women in management and career development literature argues that, in order to succeed at the management level, women have to adhere to the male

⁷⁰ This point is discussed further under the next heading, the Role and Importance of Technical Training and Experience.

model (Marshall, 1984; Ashburner, 1994; Larwood and Gattiker, 1989). That is, amongst other demands women, like men should not take career breaks or work part-time⁷¹. Indeed, unlike the men who were generally married with children, most of the women in the case studies were single or if married, had no children.

Thus, the equality structures which all the case companies had in place, some of which aimed to support part-time working and women returning after maternity leave, did not appear to always encourage women to combine family and career⁷². The image of IT management as a role where combining family and career is perhaps at best difficult, or at worst regarded as unacceptable may also discourage women to enter the field, maintaining it as a domain for men.

This research has also produced evidence to suggest that the low numbers of women in IT management are influenced not only by the image of IT, but also that of the business of an organisation. That is, socially constructed images of engineering and manufacturing as heavy industries, more suited to men than women and the propensity for men to protect their positions in these industries (Cockburn, 1983) may work to pose barriers to women's entry to them.

Thus, the evidence from this research suggests that whilst we may continue to see a rise in the number of women entering IT (Virgo, 1994), their entrance may be uneven across different sectors. That is, women in IT may become concentrated in sectors such as health, retail and services, rather than within utilities, engineering or manufacturing.

In addition, as evidence from IT Co suggested, a demand for IT qualifications and experience at the management level may be a factor that poses a barrier to more women than men as fewer women than men continue to undertake computing degrees (HESA, 1995). This result supports the women in technology argument that calls for greater encouragement for women to undertake IT education and training in order to increase their presence in the field (Bell, 1994; Borg, 1994).

10.2.4 Implications

To an extent, the implications of more men than women continuing to occupy IT management positions depends on whether a 'women in'/liberal or 'women and'/radical technology position is taken. The liberal position argues that only once women have begun to enter IT management can role models be established and women can begin to breakdown structural barriers, enabling further women to enter as IT managers. In addition to the essentialist and determinist criticisms that have been made of the liberal view (Henwood, 1993), little evidence was found in the cases

⁷¹ As section 10.5 will show there was evidence from each case study to suggest that the IT management role was viewed by the companies as one which was unsuited to part-time hours. Career breaks were also often viewed as problematic as it was assumed the manager would lose touch with the fast changing pace of IT.

⁷² This issue is discussed in more detail in section 10.5.

to suggest that a breakdown of structural barriers was occurring. Greater evidence was found to support the social constructionist view.

The women and technology and social constructionists argue that more women in IT management will not necessarily or automatically lead to changes in the male domination of the field. Women who do enter may have to do so on men's terms and adhere to the male gendered requirements of the role. It has already been shown from this study how more women than men appear to be single or have no children. In this way, they are able to adhere to the male requirements of IT management of not taking a career break or working part-time.

Another consequence of men's continued predominance in IT management may be that men's experience of IT management careers, which may be different from women's, prevails as the norm. This may serve to perpetuate and reinforce the socialisation process which creates gender stereotypes of women being less suited than men to IT management roles and engineering / manufacturing firms.

10.3 The Role and Importance of Technical Training and Experience

10.3.1 Definition and Context

As the previous section stated, much of the gender and IT debate attributes the small numbers of women in IT to their lack of IT education, training and experience. Indeed, education and training appears to be the pivot around which much argument between liberal and radical approaches in the gender and IT debate takes place.

The liberal or women in technology proponents of the gender and IT debate argue that the socialisation process, which has led to both men and women perceiving women as unsuited to technical work, has caused women to fall behind in their understanding and use of technology. This approach argues that the solution to increasing the number of women in IT and IT management positions derives increased access to IT and IT education for women.

In addition, the liberal women in technology approach acknowledges the shift in demand for IT management skills, which is moving away from a focus on technical skills towards broader based business and interpersonal skills (Larsen et al, 1991; Couger, 1988; Wysocki and Young, 1990; Hammond and Holton, 1991). Women have been identified by this approach as possessing the new skills demanded by organisations of IT managers to the same extent, if not more so, than their male counterparts (Hammond and Holton, 1991).

The radical women and technology approach criticises the liberal for being essentialist and determinist in regarding women as having certain skills which organisations are demanding as a solution to increasing the number of women in IT management. However, in so doing, the radical

women and technology approach is sometimes in danger of ignoring the role of technical or business skills in the whole women and IT equation. Instead, the role and impact of the socialisation process is concentrated on as the barrier and potential solution to increasing women's representation in IT.

In an attempt to contribute to the debate around skills and qualifications, this research has considered the relative importance of technical and business qualifications and skills in women and men progressing IT management careers.

10.3.2 Evidence

The role and influence of technical and business skills on women and men progressing IT management careers was focused on in the research by addressing:

- i) The number of men and women IT managers with IT qualifications.
- ii) The extent to which men and women IT managers had followed a technical programming or analyst career path.
- iii) The degree to which men and women IT managers used technical skills in their daily roles.
- iv) Whether men and women IT managers felt technical skills and qualifications were important to possess in conducting their roles effectively.
- v) The extent to which business and/or technical qualifications and experience were demanded from IT managers by the case companies.
- vi) The extent to which business and/or technical experience was looked for by the case companies when progressing IT managers and whether IT managers perceived technical qualifications and experience an important factor in progressing their careers.

i) The number of men and women with IT qualifications

Evidence from the case studies (Figure 10.5) show that:

- similar numbers of men (10) and women (12) have degrees;
- more men (5) than women (1) have postgraduate qualifications;
- there is no correlation between the postgraduate qualified men and their seniority. (Whilst the PhD qualified man in Utility Co was a senior manager, the 2 MBAs in Retail Co were junior managers. Each of the 3 Masters qualified interviewees in IT Co were researchers).

Similarly, no significant difference was found in the educational levels of men and women survey respondents, with the largest proportion (45%) having gained degrees (Figure 10.6).

Figure 10.5 Overall Educational Level of Case Study Respondents

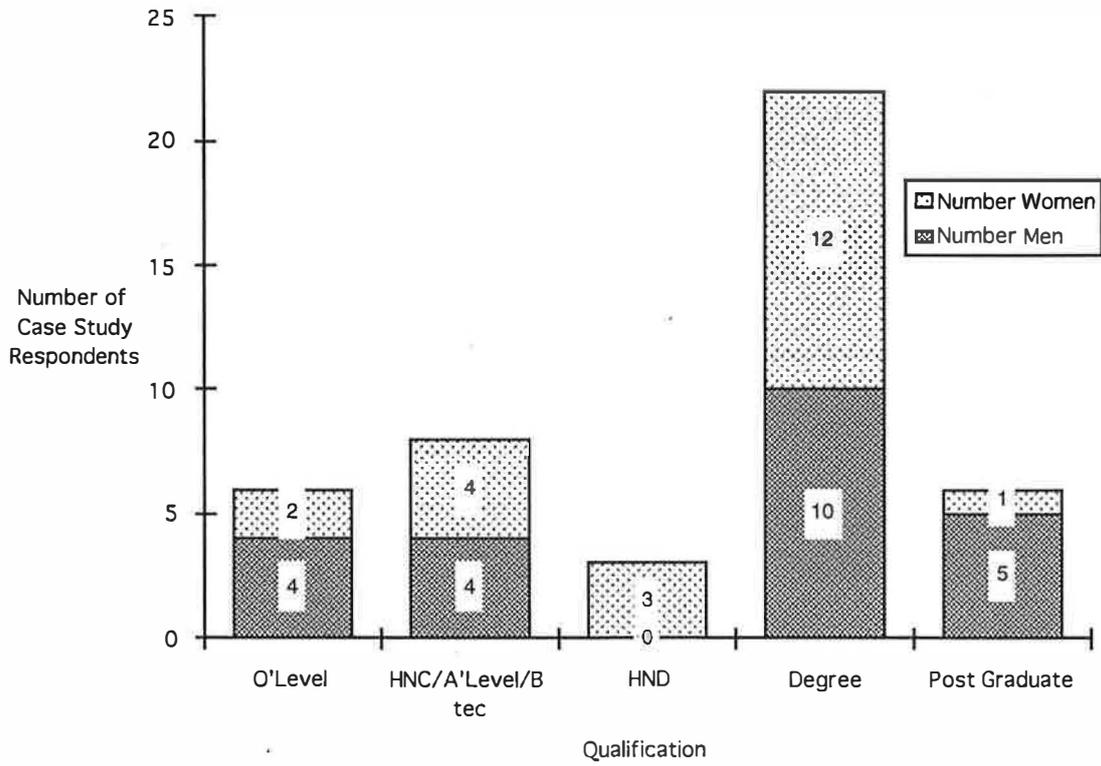
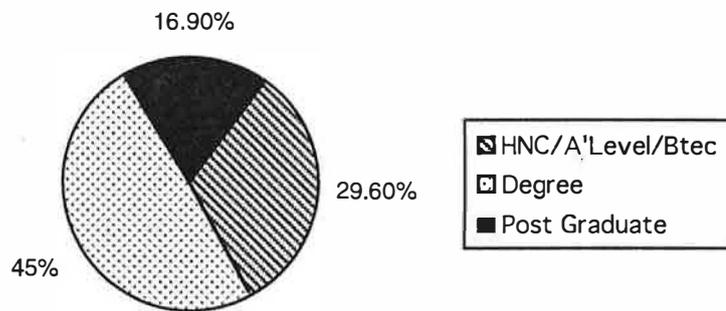
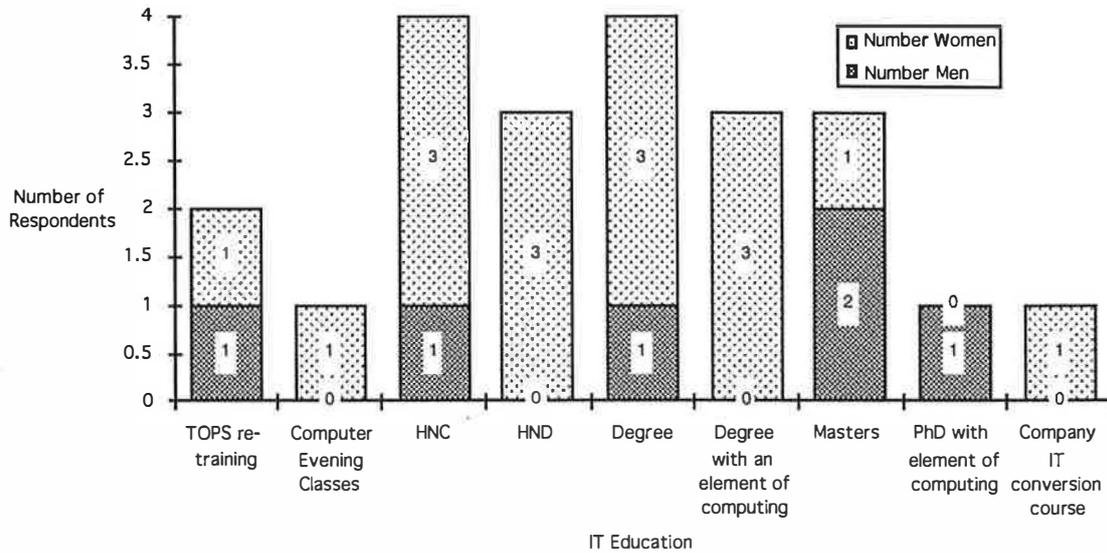


Figure 10.6 Overall Educational Level of Questionnaire Respondents



In contrast, more women (16) than men (6) in the case studies had gained IT qualifications (Figure 10.7).

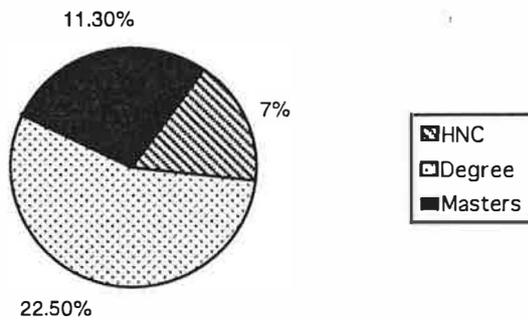
Figure 10.7 Case Study Respondents With IT Qualifications



The case studies also showed that, although overall 10 men and 15 women had changed career area in entering IT, no men but 8 women had undertaken IT qualifications or training in order to facilitate their change in career.

There was no significant difference between the number of men and women in the questionnaire who had undertaken IT qualifications. Overall, less than half the sample (42.2%) had gained IT qualifications (Figure 10.8).

Figure 10.8 Questionnaire Respondents With IT Qualifications



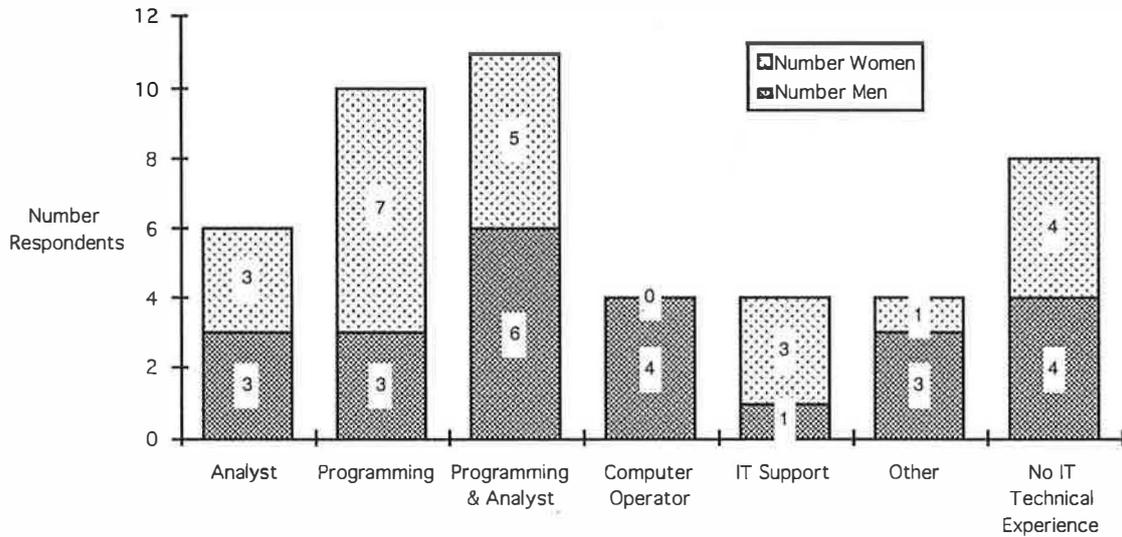
ii) The extent to which men and women IT managers had followed a technical programming, analyst or business career path

The case study results show that most men and women in the sample had analyst and/or programming experience (Figure 10.9):

- more than double the number of women (7) than men (3) had programming only experience;

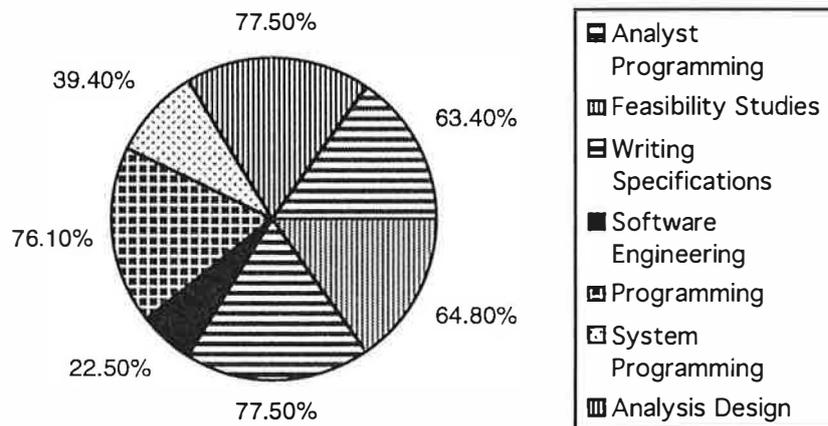
- men (4) rather than women (0) progressed from computer operators into IT managers;
- more men (3) than women (1) in IT Co had technical research or software engineering experience;
- only a small proportion of the sample (4 men and 4 women) had progressed to IT management positions with no previous technical experience. (They had had contact with IT systems as users).

Figure 10.9 Case Study Samples Experience of Programming and Analyst Skills



Similarly, a high proportion of both men and women within the questionnaire (no significant difference by gender was found) had experience of analyst and programming skills (Figure 10.10). The most common skills referred to were: analysis design (77.5%), writing specifications (77.5%) and programming (76.1%). The skills least referred to by the respondents were: system programming (39.4%) and software engineering (22.5%).

Figure 10.10 Survey Respondent's Experience of Programming and Analyst Skills



A high proportion of men and women in the overall case study and questionnaire samples had worked in other areas before entering IT, therefore also gaining business experience (Table 10.2):

- 47.9% of the questionnaire respondents had worked in other areas before entering IT;
- over half the case study sample (54.3%) and more women (15) than men (10) had moved into IT from another field;
- the most common previous field worked in across the sample was finance/insurance and accounting. This may be linked with the fact that many company IT systems began by being linked to the accounting or finance area (Wysocki and Young, 1990).

Table 10.2 Experience in Another Field Prior to IT

| Area of Work | Number of Survey Respondents | Number of the Respondents Case Studies | |
|---------------------------------|------------------------------|--|-------|
| | | Men | Women |
| Finance, Insurance & Accounting | 15 | 2 | 6 |
| Human Resource Management | 1 | 0 | 0 |
| Construction | 2 | 0 | 0 |
| Marketing | 4 | 0 | 1 |
| Civil Service | 2 | 0 | 0 |
| Academic and Business Research | 6 | 2 | 1 |
| Materials Management | 2 | 0 | 0 |
| Teaching | 2 | 0 | 2 |
| Customer Service | 0 | 2 | 1 |
| Retail Management | 0 | 1 | 3 |
| Engineering | 0 | 2 | 0 |
| Ships Navigator | 0 | 1 | 0 |
| Secretary | 0 | 0 | 1 |

Nine of the 25 case study interviewees (5 women and 4 men) who had moved area had done so within their own organisation, bringing business knowledge of their own company with them as IT managers (Table 10.3).

Table 10.3 Case Study Respondents Experience Within or Between Companies Prior to IT Entry

| | Number of Survey Respondents | Number of the Respondents Case Studies | |
|-----------------------------------|------------------------------|--|-------|
| | | Men | Women |
| Moved from inside present company | 0 | 4 | 5 |
| Moved from another company | 38 | 6 | 10 |

Thus, there appears to be some evidence within this study to show that IT managers are being recruited and developed to meet the current demands for wider business knowledge and

experience in order to align IT divisions with other parts of the organisation (e.g. Broadbent et al, 1992; Larsen et al, 1991; Couger, 1988).

iii) The degree to which IT managers use technical skills in their daily roles

Within the questionnaire very few respondents (5.6%) stated they used technical skills in their daily roles. Just over one third (34.8%) of case study respondents referred to their use of technical skills. This was the case for both men and women in the overall sample (Table 10.4). In contrast, the skills which the majority of managers stated they used came under the overall banner of general management skills. Twenty-one of the 46 case study respondents (but no questionnaire respondents) referred to their use of business knowledge in their daily management roles. That is, the importance of knowing details about the main business focus of the organisation and relating this to their IT work.

Thus, it appears from the research data that, in line with calls for IT managers to employ more general management and business knowledge skills (e.g. Cecil and Goldstein, 1990; Wysocki and Young, 1990), both men and women were drawing on these skills in their day to day jobs.

Table 10.4 Skills Used by Respondents in Daily Job Roles⁷³

| Skill | Survey (skill 1) | Finance | Co | Utility | Co | Retail | Co | IT | Co |
|--------------------|---------------------|---------|-------|---------|-------|--------|-------|-----|-------|
| | | Men | Women | Men | Women | Men | Women | Men | Women |
| Management Skills | 42.23% | 10 | 17 | 20 | 16 | 14 | 23 | 19 | 9 |
| Technical | 5.6% | 3 | 4 | 0 | 1 | 0 | 0 | 4 | 4 |
| Business Knowledge | 0 | 5 | 6 | 1 | 4 | 1 | 1 | 2 | 1 |
| Others | 50.7% | 0 | 0 | 0 | 0 | 5 | 1 | 3 | 4 |

iv) Whether men and women IT managers feel technical skills and qualifications are important to possess in conducting their job roles effectively

Just over half the case study sample (25 respondents) felt it was unnecessary for IT managers to have technical experience. Eleven women and 10 men across the case studies felt it was important to have technical skills as an IT manager in order to be effective in the role. Four main reasons were given for this response (Table 10.5).

Only women stated that IT technical knowledge provided them with confidence in their role. In addition to the 3 women managers from Retail Co that stated this, 2 other women managers from Finance Co and IT Co who felt that IT skills were not essential in their job role, added that not having technical experience had adversely effected their self confidence as IT managers at the start of their management career.

⁷³ For details of how each of the main table headings were broken down under the questionnaire and case studies, see sections 5.5 and 5.6 in Chapter 5 and tables 6.4; 7.4; 8.4 and 9.4 in Chapters 6,7,8 and 9 respectively.

Table 10.5 Why Technical Experience is Perceived as Important

| | Finance Co | | Utility Co | | Retail Co | | IT Co | |
|--|------------|-------|------------|-------|-----------|-------|-------|-------|
| | Men | Women | Men | Women | Men | Women | Men | Women |
| To gain respect from staff | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| To enable understanding of technical staff and successful management of technical projects | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 0 |
| To increase self confidence as an IT manager | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |
| Demanded by job role | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 3 |

v) The extent to which technical and/or business training and experience are looked for in IT managers and in progressing IT managers by the case companies and whether IT managers perceive technical qualifications and experience an important factor in progressing their careers.

In Finance Co and Retail Co the IT division were working to meet the challenge of becoming more closely aligned with the commercial business and improve its efficiency and effectiveness. Consequently, in both these cases, general management and business knowledge skills were emphasised in both the generic skills the case companies looked for in IT managers and the skills they looked for in progressing IT managers. Utility Co, in centralising its IT department was, in particular, undergoing a period of change in which skills to support staff through the change were identified as imperative for IT managers to possess.

IT Co differed slightly to the other 3 companies in that the same emphasis on general management and business skills were not identified, although the need for strategic skills were. Indeed, a greater emphasis was placed on technical skills, particularly on the technical career path at the management level. Although technical skills were identified as not essential on the managerial career path, IT Co did state they were desirable.

As Table 10.6 shows, with the exception of IT Co, none of the case companies looked for technical skills in their IT managers. Instead, human resource management, project management and business knowledge skills were focused on as requirements for progression.

Only 1 manager in each of Finance Co, Utility Co and Retail Co felt that technical skills and experience were an important factor in enabling them to progress their careers within their organisations. Conversely, 3 men and 3 women in IT Co believed technical skills to be important. The difference between the perceptions of the case study respondents reflect the case companies career progression policies.

Table 10.6 Skills Sought in IT Managers by Case Companies*

| Finance Co | Utility Co | Retail Co | IT Co |
|---------------------------|---------------------------|---|---|
| human resource management | human resource management | manage & develop staff | human resource management |
| good teamworker | teamworking | teamwork | strong team management |
| project management skills | project management skills | project management skills | |
| strong communication | communication | | strong communication |
| business knowledge | understand business needs | know how IT fits with business, work closely with business, some experience within stores | |
| | strategic thinking | ability to take IT group forward | strategic contribution |
| leadership | | leadership | |
| focus on customer service | | | be customer focused |
| | | planning & organising for yourself & others | ability to delegate |
| integrity | | | |
| focus on quality | | | |
| | negotiation | | |
| | change management | | |
| | motivation skills | | |
| | | analytical skills | |
| | | assertiveness | |
| | | ability to work in IT- user teams | |
| | | be known by other IT group managers | |
| | | decisiveness | |
| | | | good time management |
| | | | financial management skills |
| | | | creativity |
| | | | flexibility |
| | | | ability to push technical & corporate boundaries |
| | | | gain credibility in technical area |
| | | | technical qualifications desirable but not prerequisite |

* The table is organised to show where duplication occurred in the skills companies sought in IT managers.

10.3.3 Evidence Summary Points

- men and women IT managers in the sample are educated to similar levels;
- more women than men in the sample have IT qualifications;
- both men and women in the sample have analyst and programming experience;
- a high proportion of the overall sample had worked in other areas before entering IT;
- the majority of the overall sample referred to their use of general management skills in their daily job roles;
- few questionnaire (5.6%) and just over one third of the case study sample referenced their use of technical skills in their daily job roles;

- just over half the case study sample did not regard technical experience as important in conducting their role effectively;
- only women (5) felt that having technical experience gave them greater confidence in their job role;
- Finance Co, Retail Co and Utility Co each emphasised general management and business knowledge skills in progressing IT managers;
- IT Co placed greater emphasis on IT technical skills than the other three case study companies, particularly for managers on the technical career path.

10.3.4 Explanations

As this study has shown, once within IT, men and women appear to follow similar career paths, both occupying analyst and programming roles. This sample picture could, therefore, be interpreted to confirm the women in technology/liberal argument that technology is gender neutral and that once women have overcome gender stereotypes and undertake IT education they will be able to enter the field. However, the approach does not account for the feeling expressed by 5 women in the sample that gaining technical skills improved their self confidence in their job roles. Neither does it account for the fact that whilst none of the men undertook IT education in order to facilitate a change in career, 8 of the 15 women who changed careers did undertake IT education in order to facilitate this change.

The evidence from this research suggests that the socially constructed image of IT as male and more suited to men provides a basis for understanding why more women than men in the case study samples undertook IT qualifications. Drawing on Davidson and Cooper's (1992) arguments, views of women as less suited to technical roles leads to additional pressure on women to prove themselves and mould into male structures and cultures. By undertaking IT qualifications women are overcoming two sets of barriers — internal and external:

- internally, by proving their ability to themselves through qualifications, the women in the sample were able to disprove the embedded social view that they, as women, are not technically able. In so doing, the women were able to improve their confidence in their own ability.
- externally, in having IT qualifications, women overcame prejudices in recruiting organisations where, again due to gendered images of IT, there may be a tendency to recruit men with no IT qualifications, but not women. Without evidence of job applicants it is more difficult to substantiate this argument. Nevertheless, it remains that more men without IT qualifications than women were present within the sample.

Evidence showing that very few men or women stated they actively used technical skills in their IT management role may be explained by the shift in the role of IT managers currently occurring. As Finance Co and Retail Co in particular were experiencing, IT divisions within organisations are increasingly under pressure to become more closely aligned with the rest of the business and improve effectiveness and efficiency as IT becomes an increasingly strategic element within firms (Wysocki and Young, 1990). Thus, the focus of the IT manager does appear to be moving away from technical detail to more general management and business issues.

Some of the IT literature (Virgo, 1994) and in particular the women in technology approach, has to a large extent assumed that the shift towards aligning IT with the business will result in technical skills no longer being looked for in IT managers, as business and general management experience become more important. Indeed, over half the managers and men in particular felt that they did not need technical experience to conduct their roles effectively.

However, whilst the IT Personnel representative in Finance Co, Retail Co and Utility Co, stated that technical qualifications and experience were not looked for in recruiting and progressing IT managers, in practice all but 4 of the men and 4 of the women managers had at least some technical experience.

The results, which showed an almost equal split in the sample's views of whether technical experience was necessary for an IT manager, may be typical of a role that is currently undergoing change. Traditionally IT managers were expected to have technical experience by their staff and employers. The current situation appears to be one where companies may be beginning to focus on management rather than technical skills in recruiting IT managers. It is perhaps too early to tell whether this will have the desired effects on improving IT alignment, efficiency and effectiveness⁷⁴ and whether all IT managers will develop a view that technical experience is unnecessary.

10.3.5 Implications

The research evidence suggests that whilst technical skills may be becoming overtaken in importance by business and general management in the skills companies formally look for in IT managers, as has already been suggested, technical skills may help women themselves by improving their self confidence. However, potentially it may also slow women's progression down as they endeavour to perfect technical skills that may not in practice be required at the management level (see Chapter 6).

It is also suggested here that technical skills may present the symptom rather than root cause of inequalities between men and women in or wishing to enter IT management. The root cause may lay more in the relations between men and women and between gender and technology within organisations and society in general which deter women from entering IT and lead to inaccurate beliefs about women's ability to work in IT or to manage and lead (Marshall, 1984; Acker, 1992; Cockburn, 1986). The symptom becomes women's reluctance to enter IT or indeed their propensity to undertake IT education in order to help prove their ability to themselves and other men.

Despite the distinction made within this thesis between root causes and symptoms of inequalities between men and women IT managers, it is acknowledged that whether emphasis is placed on

⁷⁴ The annual UK Price Waterhouse surveys show that achieving IT alignment in practice is proving problematic for organisations (Price Waterhouse, 1995).

technical or management, business or interpersonal skills, skills remain an important entry and progression requirement that should not be ignored. However, it is suggested here that the use of skills and their currency value are perhaps being misinterpreted by the women in technology/liberal approach. With its current interpretation of skills, whether technical or managerial, as a ticket into IT and IT management, there is a danger that other, more deep rooted barriers may be overlooked.

10.4 The Theory and Practice of IT Managerial Career Progression

10.4.1 Context and Definition

This study has sought to identify both formal and informal factors effecting the career progression of women as compared with men IT managers. The formal factors include technical skills as discussed under the previous heading, organisation's equality structures, as discussed under the next heading, as well as the progression process, discussed here. What may constitute informal factors and how they may influence women and men IT managers' career progression was less clear at the start of this research. However several studies and theory within the women in management and career progression literature provided a starting point for exploring what form these may take.

Gendered theories of organisations, developed within the radical women in management approach, have begun to identify how, for example, processes, structures, interaction and behaviours within organisations, previously often assumed to be gender neutral may be sites of gender production (Acker, 1992; Case, 1994; Ely, 1995).

A number of studies have also been conducted specifically on career progression addressing the influence of specific organisational factors, such as mentoring (Dreher and Ash, 1990; Davidson and Cooper, 1992) and networking (Graddick, 1984). Others have highlighted the often subjective nature of the career progression process (Alban-Metcalfe and Nicholson, 1984; Tierney, 1992). All of these studies have shown how informal factors and subjectivity may lead to gender bias.

10.4.2 Evidence

This study explored the ways and extent to which the formal career progression process may be gendered. The overall results gathered from the questionnaire and case studies are reviewed here under 6 points:

- i) Formal organisational approaches to career progression;
- ii) IT managers perceptions and experiences of career progression procedures;
- iii) IT managers perceptions and experiences of career progression characteristics;
- iv) The role and impact of networking;

- v) How knowledge of career progression procedures and characteristics was gained by IT managers;
- vi) The choices made by IT managers following career progression process information.

The last 3 points in particular contain results that add additional information to existing literature on networking, how informal career progression knowledge may be communicated within firms and the impact of the informal career progression process on women compared with men IT managers.

i) Formal organisational approaches to career progression

In Finance Co and Utility Co formal progression procedures were limited to applying for a higher level post. Interviews were conducted by the post's senior manager and a personnel representative.

Within both Retail Co and IT Co, more complex procedures were in place. These aimed to overcome subjectivity and bias in the career progression process and ensure opportunities were applied equally across the IT group. In so doing, the approaches of both Retail Co and IT Co made it important for the contribution made by IT managers and their performance to be known by senior management other than their own immediate managers. How such contacts should be made, however, were not made clear in the career progression procedures of these 2 companies.

Both Retail Co and IT Co had established a set of skills and attributes (characteristics) they looked for in progressing IT managers. Finance Co and Utility Co had not developed a specific set of characteristics. However both companies stated that the IT managers were expected to possess the generic skills and attributes looked for in their IT managers generally.

Table 10.7 illustrates that amongst the many different characteristics referred to by the case companies, 9 skills were referred to by more than one company, namely:

- leadership skills;
- project management skills;
- human resource management skills;
- customer service skills;
- communication skills;
- business knowledge;
- strategic skills;
- team working skills;
- planning and organising / delegation skills.

Each of these skills are drawn from the broad categories of business and general management skills. They reflect the skills the literature is calling for IT managers to develop in order to more closely align the IT division with the business and strategy of an organisation (Wysocki and Young, 1990).

Table 10.7 Formal Career Progression Characteristics Identified in the Case Studies*

| Finance Co | Utility Co | Retail Co | IT Co |
|---|---------------------------|--------------------------------|--|
| good teamworker | teamworking | teamwork | strong team mgt |
| human resource mgt | human resource mgt | manage & develop staff | human resource mgt |
| strong communication | communication | | strong communication |
| project mgt skills | project mgt skills | project mgt skills | |
| business knowledge | understand business needs | know how IT fits with business | |
| strategic thinking | take IT group forward | strategic contribution | |
| focus on customer service | | | be customer focused |
| leadership | | leadership | |
| planning & organising for yourself & others | ability to delegate | | |
| focus on quality | | | |
| integrity | | | |
| | negotiation | | |
| | change mgt | | |
| | motivation skills | | |
| | | | |
| | | analytical skills | |
| | | assertiveness | |
| | | work in IT-user teams | |
| | | known by other IT managers | |
| | | | good time mgt |
| | | | financial mgt skills |
| | | | creativity |
| | | | flexibility |
| | | | ability to push technical & corporate boundaries |
| | | | credibility in technical area |
| | | | technical qualification desirable/not prerequisite |

Key: mgt = management

* The table is organised to show where duplication occurred in formal career progression characteristics identified in the four case studies.

ii) IT managers' perceptions and experiences of career progression procedures

In addition to gathering data from the case studies on IT managers experiences and perceptions of career progression procedures, the questionnaire also tested the degree of influence respondents felt a number of different factors had on successful career progression. As this section will show, 4 of the 6 factors tested in the questionnaire, also arose within the case studies. Table 10.8 presents all the factors tested — the first 5 denote those that also arose within the case studies.

Table 10.8 Questionnaire Respondents Perceptions of Important Career Progression Procedures

| Procedures | Not Very Influential | | Moderately Influential | Very Influential | |
|---|----------------------|-------|------------------------|------------------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| Knowing the right people | 15.5% | 12.7% | 32.4% | 25.3% | 11.3% |
| Participation in outside work hours social events | 43.7% | 15.5% | 33.8% | 4.2% | 0% |
| Working extra hours | 14.1% | 12.7% | 39.4% | 28.2% | 2.8% |
| Achievement of objectives | 2.8% | 1.4% | 1.4% | 25.4% | 67.6% |
| Length of time employed within organisation | 14.1% | 11.3% | 42.3% | 23.9% | 5.6% |
| Participation in outside work events on behalf of the company | 29.6% | 14.1% | 36.6% | 16.9% | 0% |

Table 10.8 demonstrates that:

- almost all the respondents (93%) felt that achieving objectives was very influential in gaining career progression;
- just over one third of the respondents (36.6%) felt that knowing the right people was very influential;
- another form of gaining visibility, that is, by working extra hours was also viewed as very influential by about one third of the sample (31%).

Whilst achievement of objectives might be expected to be a formally requested career progression requirement within organisations, knowing the right people and working extra hours appear more subjective in nature and whilst less important than achieving objectives, also appear to be perceived as important procedures by at least one third of the respondents.

Thus, some evidence arose from the questionnaire to support career development literature suggesting that the career progression process often contains subjective as well as objective elements within it (e.g. Alban-Metcalfe and Nicholson, 1984; Tierney, 1992; Graddick, 1984; Alimo-Metcalfe, 1993).

Table 10.9 provides a summary of the procedures sample IT managers from the case studies felt were influential in successful career progression.

The majority of the procedures shown in Table 10.9 were not referred to by the IT Personnel representative in the case companies. However there were some exceptions. For example, within IT Co, IT Personnel explained how it was important for technical management staff to make an identifiable contribution in order to progress and that all managers were encouraged to manage their own careers. Also, within Retail Co and IT Co, the procedures which related to senior managers other than an individual's immediate manager also approving the progression possibly encouraged the tendency to view networking as important. This was acknowledged as

the case by IT Personnel in both these companies and in Retail Co, as the following section will show, a characteristic of being known by other managers in the IT group was highlighted as important by IT Personnel.

Table 10.9 Perceptions of Influential Career Progression Procedures

| | Finance | Co | Utility | Co | Retail | Co | IT | Co | Total | Total |
|--|---------|-------|---------|-------|--------|-------|-----|-------|-------|-------|
| Procedure | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| networking | 6 | 6 | 2 | 4 | 6 | 6 | 6 | 6 | 20 | 22 |
| canvassing | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 |
| right place right time | 3 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 4 |
| being known by & getting on with senior managers | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 4 | 4 |
| gaining wide experience within organisation | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 2 |
| manage own career | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 2 | 4 |
| make an identifiable contribution | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 1 | 4 |

Four of the 7 procedures referred to overall by the sample may be interpreted as informal. That is they were not referred to by the companies' IT Personnel representative and were likely to be subjective in nature. These include:

- networking;
- canvassing;
- being in the right place at the right time;
- being known by and getting on with senior managers;

Each of these informal procedures were referred to in at least 1 of the case companies.

Networking was referred to by almost all the interviewees in each case company. Notably, each of these procedures refer to the importance of being visible within an organisation in order to gain career progression.

It is difficult to draw out any clear response patterns amongst the men and women overall, other than within IT Co, Finance Co and Utility Co, where women referred to more and varied procedures than men.

Overall the results confirm previous studies (Alban-Metcalf and Nicholson, 1984; Tierney, 1992; Dreher and Ash, 1990) highlighting the subjective and informal factors perceived by IT managers that may influence a company's career progression process.

iii) IT managers perceptions and experiences of career progression characteristics

As Table 10.10 shows, a high number (36) of different skills and attributes were referred to by the sample as being important career progression characteristics. It varied between the case companies the degree to which perceptions of the importance of different characteristics matched those cited by IT Personnel. For example, within Finance Co , Retail Co and IT Co, many of the characteristics referred to by IT Personnel were also cited by the interviewees. In Utility Co, interviewees referred to only 2 characteristics also cited by IT Personnel, although these were the most frequently referred to by interviewees.

Table 10.10 Respondents Perceptions of Characteristics Important for Career Progression

| | Finance Co | | Utility Co | | Retail Co | | IT Co | | TOTAL | |
|------------------------|------------|-------|------------|-------|-----------|-------|-------|-------|-------|-------|
| | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| Team Skills | 7 | 3 | 2 | 3 | 4 | 3 | 3 | 3 | 16 | 12 |
| Management Skills | 9 | 2 | 2 | 1 | 7 | 12 | 3 | 4 | 21 | 19 |
| Company Skills | 2 | 0 | 2 | 1 | 1 | 0 | 2 | 2 | 7 | 3 |
| Personal Skills | 5 | 6 | 1 | 3 | 10 | 9 | 5 | 11 | 21 | 29 |
| General Ability Skills | 3 | 4 | 2 | 3 | 2 | 3 | 3 | 5 | 10 | 15 |

Key:

- Team Skills:** be people oriented, be a team player, good communication.
- Management Skills:** good managerial skills, be a good leader, business awareness, good negotiation skills, take responsibility from senior managers, know how to influence others, manage upwards, be organised and plan, have a balanced judgement, be concerned with IT for business use.
- Company Skills:** be customer sensitive, be committed to the company, adhere to company values, fit in with the company culture,
- Personal Skills:** be positive, be dynamic, take initiative, be politically aware, be respected, be flexible/portable, appearance, be confident, be assertive, be ruthless, be arrogant, strength of character, be trustworthy be focused.
- General Ability:** performance, technical background, good analytical skills, all round ability, qualifications.

Besides the commonalty between characteristics cited by IT Personnel and IT managers, many additional skills and attributes were referred to by the respondents which they perceived as important. Many of these fell under the headings of Personal Skills and Attributes and specific skills perceived as being required in order to fit in with the company (referred to as Company Skills).

None of these characteristics were referred to by IT Personnel within the case companies and most appear as highly difficult and subjective skills and attributes to judge when considering career progression. Some reflect masculine socially constructed skills, such as 'being ruthless', 'confident' and 'arrogant' (Kaufman, 1989; Reskin and Phipps, 1988). In addition, 'fitting in with the company culture', 'appearance' and 'adhere to company values' may demand adhering to the rules and images set by the dominant group within the organisation, which in each of these cases within the IT division, is men.

It is difficult to draw any clear patterns overall in the way in which men and women respondents perceived career progression characteristics:

- across the samples, more women (32) than men (28) referred to the characteristics identified here as informal;
- within Finance Co more men and senior men than women referred to more and varied characteristics and more that were in line with those referred to by IT Personnel;
- within Utility Co, the junior managers, who were women referred to fewer career progression characteristics;

(Thus, within both Finance Co and Utility Co, knowledge of career progression characteristics appeared divided amongst men and women and along hierarchical lines).

- within Retail Co it was difficult to draw out any patterns between men and women;
- within IT Co women referred to almost twice the number of characteristics as men.

iv) The role and impact of networking

'Networking', 'visibility' or 'profile raising' appeared as the most commonly referred to career progression procedure within this study and therefore supports the importance placed on this factor within career development literature (Graddick, 1984; Tierney, 1992; Hammond and Holton, 1992). Given the importance attributed to networking, further attention was directed on it, particularly in the latter 2 case studies - Retail Co and IT Co, where the methods interviewees adopted in networking were highlighted. Before reviewing these, the definitions of networking and any differences between men and women in their experiences of it, are noted.

Similar definitions arose from the respondents of networking within each of the case studies:

Finance Co: It is not good enough just to do a good job in order to progress a career. It is also important to be known, accepted and respected by senior managers who influence the career progression decision.

Utility Co: It is important to have a wide range of people across the organisation that you know and who know you and think highly of your work. Networking may also be used to provide information and try and influence a positive career progression result.

Retail Co: It is important to be known by and thought well of by managers other than your immediate line manager in the IT Group.

IT Co: It is not sufficient to just do a good job, it is important that good work and in particular individual contributions should be publicised to immediate and more senior managers from other functions.

Thus, networking within this study appears to include being seen by senior managers and thought well of by them. Particularly in Retail Co and IT Co the formal procedures, which rely on sponsorship from senior managers in and outside the IT function, appear to promote the need for networking.

This study contrasts with Larwood and Kaplan's (1980) assertion that women often fail to recognise the importance of networking, as almost all the case study respondents, both men and women, emphasised the importance of networking in the career progression process. However, not all of them found it easy to do.

Table 10.11 summarises the degree to which respondents stated they found networking easy or difficult to do. It shows that the majority of men (17) but few women (8) described networking as something they felt was easy to do and they were comfortable with doing it. This result appears to confirm previous study's conclusions that more women than men often find networking and gaining a mentor difficult (Davidson and Cooper, 1992; Ragins, 1989). However, such a conclusion does not portray the entire picture. Whilst many women in the sample (15) did feel uncomfortable with networking, many (11) continued to network because of its perceived important influence on career progression.

Table 10.11 How Easy / Difficult Respondents Found Networking

| | Finance Co | | Utility Co | | Retail Co | | IT Co | | Total | |
|---|------------|-------|------------|-------|-----------|-------|-------|-------|-------|-------|
| | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| felt comfortable with networking /easy | 5 | 1 | 4 | 4 | 4 | 2 | 4 | 1 | 17 | 8 |
| felt uncomfortable / not easy / didn't do it | 1 | 1 | | | | 1 | | | 1 | 2 |
| felt uncomfortable / not easy but did it - perhaps in own way | | 4 | 1 | | 2 | 3 | | 4 | 3 | 11 |
| know networking takes place but doesn't link it with career progression | | | | 1 | | | | | 0 | 1 |
| networking required a change in behaviour but wasn't easy | | | | | | | 2 | 1 | 2 | 1 |

Differences arose between men and women in the way in which they networked. This issue was only explored in depth within Retail Co and IT Co. However, some examples of differences did arise in Finance Co and Utility co. For example, within Finance Co, 2 women managers described how they felt networking was often carried out on a social and informal basis, often at the pub. They felt they had to be outgoing and gregarious to join with the men in networking in this way and felt uncomfortable doing this. Given the perceived importance of it, the 2 women continued to network, but within work hours and in their own way.

Two other women managers in Utility Co expanded a little further about how they perceived their way of networking to be different from male peers. One woman manager explained that she felt uncomfortable discussing technical or other problems she had with male colleagues as she felt there was a danger they may see her as a weak woman if she did. Therefore, networking with men was kept to a more positive and perhaps superficial level. Instead, this manager networked with other women managers about technical and problem issues (perhaps aided by the women's network operating within Utility Co). Another woman in Utility Co felt she networked with men in a different way to how they networked with each other. She felt that because men did not view her, as a woman, as a threat to them, they were more willing to confide about work problems they were experiencing.

Table 10.12 summarises the methods used by IT managers in Retail Co and IT Co to network. The methods themselves were largely informal in nature, including 'advertising yourself', 'creating opportunities to meet and impress senior managers' and 'being part of the social infrastructure of the company'. That is, there was no guidance formally provided in either Retail Co or IT Co as to how any of these methods should be approached or that they existed as methods of networking at all. This information adds further information to the literature base on networking, which has not yet addressed the specific methods used.

Table 10.12 Methods Used by Retail and IT Co Respondents to Network

| Methods of Networking | Finance | Co | Utility | Co | Retail | Co | IT | Co | Total | Total |
|--|---------|-------|---------|-------|--------|-------|-----|-------|-------|-------|
| | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| make sure you're seen to be doing a good job / go out of your way to make sure people know who you are and what you're doing | 1 | 2 | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 5 |
| tell managers about your good work (sell yourself) / advertise yourself and your successes | 0 | 1 | 0 | 0 | 2 | 2 | 1 | 4 | 3 | 7 |
| give presentations | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| always talk to people on the level above you / create opportunities to meet and impress senior managers | 0 | 0 | 0 | 1 | 4 | 4 | 1 | 1 | 5 | 6 |
| get exposure to other parts of the organisation / move areas | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 3 | 2 |
| be part of the social infrastructure of the company | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| work on high profile projects | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 2 | 2 | 5 |
| participate in temporary improvement projects | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| communicate with managers outside your direct job areas | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 3 | 2 |
| be enthusiastic in your job | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| get a sponsor / mentor outside your area | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |
| have friends in other departments after being in company for long time | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |

Little difference in the ways men and women networked appeared in Retail Co and IT Co. The exceptions to this are that more women in IT Co emphasised the importance of 'advertising yourself and your successes' and that slightly more women than men in both companies highlighted the importance of 'working on high profile projects'. In Retail Co, in particular, how an individual came to work on a high profile project was also subjective and described by IT Personnel as "a bit of a lottery". Overall, between Retail Co and IT Co, men and women referred to similar numbers of methods of networking. Thus, knowledge of how to network appeared to be quite evenly spread amongst men and women in the sample.

v) How knowledge of career progression procedures and characteristics was gained by IT managers

The ways in which IT managers described how they gained knowledge about career progression varied amongst the case studies (Table 10.13).

Table 10.13 Methods Used by Respondents to Gain Career Progression Information

| How knowledge was gained | Finance Co | | Utility Co | | Retail Co | | IT Co | | Total | |
|--|------------|-------|------------|-------|-----------|-------|-------|-------|-------|-------|
| | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| Guidance from senior manager | 0 | 4 | 0 | 2 | 3 | 2 | 0 | 2 | 3 | 8 |
| Experience over time | 5 | 2 | 0 | 3 | 3 | 4 | 6 | 4 | 14 | 13 |
| self realisation after not progressing | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | | | | | | | | | | |

Table 10.13 shows that:

- the main differences between men and women arose in Finance Co where the majority of women relied on senior, mainly male managers for career progression knowledge. The men described a far less structured way of gaining information and appeared to pick up knowledge over time;
- in Utility Co, none of the men were able to describe how they had gained knowledge, but felt it was something they had always known — more as part of their tacit knowledge;
- perhaps due to the more complex formal career progression procedures within Retail Co and IT Co, both men and women explained how they had gained knowledge of formal and informal elements;
- in contrast to Finance Co, half the men in Retail Co said they had gained information about career progression from their managers.
- conversely, over half the women in the Retail Co sample said they had received no such guidance and picked knowledge up as they went along;
- in IT Co the majority of both men and women had gained knowledge through experience and observation. Only 3 women had been given information by senior managers;

- within Retail Co, both women and men could re-call roughly when they felt they had gained a good amount of knowledge about career progression. Whilst it took women on average 9.4 years of working within Retail Co before they felt they had reached this stage, it took the men managers on average only 1.6 years⁷⁵.

Thus, there is some evidence within this study to suggest that men and women may gain information and particularly informal information about career progression in different ways.

vi) Choices made by IT managers following career progression information

Having gained information, many of the sample managers explained how they made decisions about how they would behave within the companies in relation to the perceived demands of the informal career progression process. Overall, 3 choices appeared from the study:

- **Acceptance:** of the career progression process perceived demands and adherence to them.
- **Compromise:** a perception of the importance of informal procedures and characteristics for successful career progression, but a feeling of unease with them, often resulting in adhering to perceived demands either as far as an individual felt necessary or in their own way, in order not to jeopardise career progression.
- **Rejection:** of the perceived demands. A feeling of being uncomfortable with them, that they are inappropriate and a decision not to adhere to them, but to behave in a way the individual feels is appropriate and comfortable for them.

Table 10.14 presents the choices interviewees made. It shows that:

- the majority of men and women, but more men (20) than women (15) decided to accept and adhere to the procedures and characteristics;
- conversely, 6 women but only 2 men made a choice of compromise.

It may be suggested that implicit within the choice to accept for the women IT managers was a desire to be integrated and fit in with the dominant group and requirements of them in order to succeed in the organisation. In 1 or 2 cases, this suggestion was made more explicit. For example, within Finance Co, 1 woman IT manager who made the decision to accept refers to herself as a man in describing what she should do in order to progress. In Utility Co, another woman manager explained that she felt it was too difficult to have children and adhere to the perceived career progression demands and had decided not to have a family in order to succeed and progress up the career ladder at work.

⁷⁵ It should be noted that this response relies on the perceptions of men and women. These may be influenced by a number of different factors such as self confidence, for example. Nevertheless, it is important to note that women *felt* it took them far longer than men to gain knowledge about career progression.

Table 10.14 Choices Made By Interviewees Influenced by Perceptions of the Career Progression Process

| | Finance Co | | Utility Co | | Retail Co | | IT Co | | TOTAL | TOTAL |
|------------|------------|-------|------------|-------|-----------|-------|-------|-------|-------|-------|
| Choice | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| Acceptance | 5 | 5 | 5 | 3 | 4 | 2 | 6 | 5 | 20 | 15 |
| Rejection | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 2 |
| Compromise | 0 | 1 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 6 |

A choice of compromise arose where individuals described themselves as feeling unhappy or uncomfortable with following the perceived demands, or found them difficult to follow. In this situation the (mainly) women managers described either how they carried out the perceived demands as far as possible in their own way or only followed them when they felt they had to — either when preparing for career progression or pushed to by senior managers.

The few respondents who described a decision of 'rejection' acknowledged that they felt this might adversely effect their progression prospects.

It emerged from both Retail and IT Co that for many of the managers that decided to 'accept', this meant they often had to change their behaviour in some way. Within IT Co this was described as the case for more women than men.

Despite the importance each of the case study respondents perceived their companies placed on informal procedures and characteristics, decisions to accept, compromise or reject them were not included as a rationale for their career progression aspirations. That is, as Table 10.15 shows, whether an individual had career progression aspirations or not, did not appear to be influenced by perceptions of the career progression process, but more by the perceived nature of the job at the next level. Indeed, the 2 women junior managers in Utility Co and Retail Co who rejected the perceived demands still had career progression aspirations. Overall, 15 men and 15 women expressed their aspiration for career progression.

Thus, whilst adhering to the perceived career progression demands may well have involved behaviour changes for both men and women in the sample, it was mainly women who chose options of rejection or compromise.

Table 10.15 Influences on Not Having Career Progression Aspirations

| | Finance Co | | Utility Co | | Retail Co | | IT Co | | Total | |
|---|------------|-------|------------|-------|-----------|-------|-------|-------|-------|-------|
| | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| No aspirations due to nature of senior level job | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| No aspirations as impossible in current environment | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 |
| Unsure whether to stay in company | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Just been promoted | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Not ambitious for career progression | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| Happy in present grade | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Can't combine child care with hours & dedication demanded by higher level job | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Won't be as hasn't done what company demands due to having children | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

10.4.3 Evidence Summary Points

- Finance Co and Utility Co had career progression procedures limited to applying for a higher level post;
- Retail Co and IT Co had more complex career progression procedures, both of which involved gaining sponsorship and recognition from senior managers in order to progress;
- overall, the characteristics looked for by the case companies in progressing IT managers focused on general and business management skills rather than IT technical skills;
- the questionnaire results show that whilst achieving objectives are regarded as important in the career progression process, other more informal influences are also regarded as influential;
- all but 2 of the procedures regarded as important by the case study samples were not referenced by IT Personnel and may be interpreted as informal in nature;
- visibility in various forms, including networking were referred to as important by each of the case study sample;
- many of the career progression characteristics referred to by case study respondents were linked to personal attributes and the need to fit in with the company culture. Many were not referred to by IT Personnel and may be interpreted as informal in nature;
- although both women and men expressed their perceived importance of networking in the career progression process, the majority of men (17) but few women (8) described networking as something they felt was easy to do and were comfortable with;
- there was some evidence in the case studies to suggest men and women gain information and particularly informal information about career progression in different ways;
- choices were made by the case study respondents about whether to accept, reject or compromise with the perceived demands of the career progression process;

- more men (20) than women (15) chose to accept the perceived career progression process;
- 6 women but only 2 men compromised with the perceived career progression process;
- 2 women and 1 man rejected the perceived career progression process.

10.4.4 Explanations

This section attempts to answer 4 questions:

- Why and how do informal career progression procedures and characteristics develop?
- Why do some men and women appear to experience networking differently?
- How have different communication routes for gaining career progression information developed?
- Why do more women than men choose to compromise with or reject the perceived demands of the career progression process?

i) Why and how do informal career progression procedures and characteristics develop?

In the past, studies have suggested that informal and subjective elements of career progression develop where formal procedures and policies are lacking (e.g. Alban-Metcalf and Nicholson, 1984; Tierney, 1992). Whilst this argument may be applied to the Finance Co and Utility Co cases, it does not account for the perceived informal process in Retail Co and IT Co, where extensive formal procedures and characteristics were in place. Thus, as suggested by this thesis in the literature review, it may be too simplistic to attribute the informal to the lack of formal structures.

Radical women in management literature argues how the cultures, behaviours and attitudes within an organisation, which are gendered, influence the role of management (Cassell and Walsh, 1993; Case, 1994). It is suggested here that informal procedures and characteristics, as they were perceived by the sample respondents, derive a number of such sources and influences. For example, within Retail Co, 2 managers attributed the characteristics they perceived as important as arising from the company culture:

"There are certainly things about just looking the part.... about things like self confidence, fitting in with the Retail Co culture."

(code 3, female, level 5, Retail Co)

"I think a degree of assertiveness and arrogance - corporate arrogance. You work for Retail Co and you are the best, Retail Co is the best and you perpetuate that with those you meet." (code 6, male, level 6, Retail Co)

It appears that the cultures of an organisation, the behaviours, attitudes and values it places importance on may not only provide replacement for career progression procedures and characteristics where there is a lack of structure, as in the Finance Co and Utility Co cases, but

may also pervade formally established structures, policies and procedures, as found within Retail Co and IT Co. This view supports Clegg's (1981) arguments that regulative rules exist within organisations. He defines social regulation as the ways in which a person may be expected to relate to other persons in achieving a task and organisational purposes generally. For managers, Clegg states, social regulation refers to commitment, morale and motivations. To enter, prosper and survive within an organisation, Clegg argues, can depend on how a person is viewed by decision makers, whether someone is viewed as a full organisation members and as fitting in.

There is also evidence within the Retail Co and IT Co case studies to suggest that certain formal procedures and characteristics may in fact fuel the development of informal procedures and characteristics.

In Retail Co, for example, the career progression procedure which aimed to overcome subjectivity and bias required an individual to gain sponsorship supporting their progression not only from their immediate manager but also from an IT executive outside their area and a user Executive. This led to the formal characteristic, 'being known by other IT Group managers' to be focused on by IT Personnel as important. However, Retail Co did not specify or provide IT managers with guidance on how sponsorship should be gained. Consequently, the respondents placed great importance on profile raising or networking in the career progression process and had developed a number of informal methods to do this.

Similarly, within IT Co, a number of formal procedures encouraged informal networking. These included the ranking procedure, where individuals are compared with each other on the same grade, the Promotions Review Board and the need for some managers to demonstrate an individual contribution in order to progress.

It is suggested here that informal procedures and characteristics may arise not only from organisational cultures, defining attitudes, behaviours and actions that are required, but also from the formal career progression process itself.

ii) Why do some men and women experience networking differently?

The wording of the above question is itself significant in that previous studies (e.g. Larwood and Kaplan, 1980) have concluded that women often fail to recognise the importance of networking. Contrary to such a conclusion, this study found that both women and men were very much aware of the importance of networking in the career progression process. However, the majority of men, but minority of women found networking easy and comfortable to do. It is this finding for which an explanation is sought.

One such explanation may be found within attribution theory. Rosenthal et al (1993) and Igbaria and Baroudi (1995) in their studies of men and women managers found that women were more

commonly attributing their good performance to hard work and effort, whereas men attributed theirs to ability. Rosenthal et al (1993) argue that the stronger a belief that one's success derives personal ability, rather than hard work and effort, the stronger the base for the development and maintenance of self confidence and expectations of future success. Although attribution theory was not tested in this research, women's attributions of their success may, if Rosenthal et al's arguments are followed, effect women's confidence in promoting themselves through networking⁷⁶.

Another explanation for the difficulty more women than men described they found with networking comes from Case's (1994) work on interaction patterns. According to Case, men and women have different interaction patterns. Organisations typically foster interaction patterns that are more compatible with men's established interaction patterns than women's. For this reason Case (1994) argues that women are permitted to operate and interact within organisations if they do so on men's terms.

The predominance of men in the IT divisions of the sample companies may also influence women's experience of networking, as it is with men, as senior managers, that women mostly have to network. Previous studies (e.g. Tierney 1992) have noted how women are often excluded from male networks, which may account for the difficulty they find in having to follow what they perceive as an important career progression procedure. There was some evidence in the case studies to suggest that some exclusion was taking place, albeit indirectly. For example, men networking through social events or the pub were locations women did not feel comfortable networking in.

In addition, there was an indication that the view of women as unsuitable for technical and managerial work (Sekaran and Leong, 1992) might be influencing the way men and women networked with each other. That is, examples from Utility Co in particular showed women may not feel comfortable sharing problems with men as they did not wish to be regarded as weak. Also, that men may have networked more openly with women as they did not perceive them as competition or a threat.

Thus, it appears that the process of networking itself may contain gender attributes within it. Firstly, women may feel less disposed to draw attention to their successes than men due to the attributes they assign to their success. Secondly, the ways in which men and women interact with each other may be different, yet the established norm for interaction may be based on men's patterns. Thirdly, the ways, times and venues for networking may be more male in nature, including, for example, pubs and other social events. This latter factor supports other studies which have shown women often to be excluded from men's networks.

⁷⁶ This hypothesis could be tested in future research.

iii) How do different communication routes for gaining career progression information develop?

Under this question explanations for both the ways in which men and women IT managers gained career progression information as well as the extent and type of information they gained will be considered. As the results section showed, in some instances men and women appeared to have similar and in others different knowledge of the career progression process.

It appeared to vary across the companies as to how men and women gained career progression knowledge. Only within IT Co did the same responses arise from most men and women that they had gained knowledge through experience and observation. In Finance Co and Utility Co, women seemed to rely more on information being provided by their managers whereas men seemed to pick up information to the extent it could be described as part of their tacit knowledge.

One explanation for the findings within Finance Co and Utility Co suggested here is linked with the operation of information networks. In both companies, little formal structure was operated in the career progression process and therefore, the informal procedures in particular were also communicated informally. It is possible that, as within other studies (e.g. Tierney 1992), whilst the informal information was transmitted through networks existing between men IT managers, the women may not have had access to these. This may have left them far more reliant on their managers to communicate more formally with them in order to gain the information they needed to progress their careers.

Conversely, in Retail Co more specific and complex career progression procedures and characteristics operated. Given their complexity it can be argued that IT managers needed them formally explained to them by their own managers. However, this did not appear to happen for men or women, but more men than women did have the process informally explained to them by their manager. Conversely, half the women respondents said they were left to pick up the information as they went along. Importantly within Retail Co it appeared that the time at which managers gained career progression information differed for men and women, taking women on average almost 3 years more to feel they had gained the necessary information to progress their managerial careers. Thus, within Retail Co it may be suggested that the lack of formal process of information dissemination again may have led to men forming a network in which career progression information was exchanged and to which fewer women had access to.

Although the results show women in some cases gaining information from different routes, overall it is difficult to see any clear indication of how this translated into different knowledge amongst men and women. For example, within Finance Co and Utility Co, women referred to more and varied procedures than men. This may be attributed to women being more conscious of the procedures than men, for whom they had become part of their tacit knowledge. Similarly, across the cases more women than men referred to different characteristics. In addition, both

men and women in Retail Co and IT Co had similar awareness of ways of networking. Thus, it might be suggested that once the respondents had reached management positions or progressed some way as IT managers, their level of knowledge about the informal career progression process was similar. Uneven knowledge may therefore be more of an issue at pre-management levels.

iv) Why do more women than men choose to compromise with or reject the perceived demands of the career progression process?

The explanations offered so far within this section have suggested that the informal career progression process partly derives organisational cultures, behaviours, traditions and role models and carries within it many male attributes. Indeed, the literature also indicates that organisations, often dominated by men in decision making positions, provide the model for management. Women, if they wish to survive and succeed, need to adapt themselves and adhere to the male model (Marshall, 1984; Alban-Metcalfe and Nicholson, 1984). Consequently, it is perhaps unsurprising to see in the results that the majority of men and women decided to accept the informal career progression process perceived as important and follow it accordingly. It may be deduced that these women felt that in order to succeed, they needed to compete with men on their terms. This involved for some women not having a family in order to follow men's career patterns of no break and no part-time working.

In considering the explanation it is again important to note the distinctions between men and women as well as between male and female. That is, it should not be assumed that because attributes of the informal process are identified here as male, that all women will be alienated from them or all men comfortable with them. Thus, it is also possible that some women accepted the informal process because, like many men, they did feel comfortable with it and did not question it.

It is interesting to note that indications were present in Finance Co, Retail Co and IT Co that some men as well as women felt they had to change their behaviour in accepting the informal process. The above explanation accounts for women doing this, but it is interesting to consider why men should also do so.

Even though men IT managers in the case studies indicated they, for example, found networking difficult or uncomfortable, unlike the women interviewed the majority continued to accept the informal process, rather than reject or form a compromise with it. It is possible that it is more difficult for men to react against the informal process as, as this thesis suggests, it is formed by and adhered to by their own dominant group.

In contrast, women did feel able to react against the dominant group's informal process. In both the alternative choices and in compromise in particular, an element of trying to invoke change

can be detected within the women's actions. That is, adhering to the informal process as far as they felt comfortable with.

The women that rejected the informal process still had career progression aspirations. Therefore, it may be inferred that they believed career progression would still be possible. Alternatively, their choices may change as they approach progression points or possibly experience blocks to it.

Thus, this study has shown that women are not passive recipients of the male informal process. Not only are they aware of it, many of them are seeking to act in their own way, not necessarily as directed by the career progression process.

10.4.5 Explanations Summary

- informal practices may not only provide replacement for career progression procedures and characteristics where there is a lack of structure, but may also pervade and sometimes override formally established structures, policies and procedures;
- men and women may experience networking differently due to differences in how they attribute good performance. Women's tendency to assign good performance to hard work rather than personal ability (Rosenthal, et al, 1993) may negatively effect their confidence in promoting themselves through networking;
- difficulty with networking may also arise from the predominance of men in IT which may preclude women from networking (Tierney, 1992) or force women to network in patterns they are uncomfortable with (Case, 1994);
- the different ways in which men and women gained career progression information may have been influenced by the lack of formal communication structures around career progression in the four case studies;
- differences in the tendency of men and women to accept, compromise with or reject the perceived demands of the career progression process may be influenced by the predominance of men in the case study organisation and within the IT divisions. Such male predominance may influence the organisational cultures, accepted behaviours, traditions and role models within the case study companies, which may be easier for men than women to follow. Equally, given the masculine nature of the organisational cultures and some of the perceived demands of the career progression process, it may be more difficult for men to outwardly show they are choosing to reject or compromise with the career progression process.

10.4.6 Implications

Whilst the above explanation section has argued that not all men will feel comfortable with the male attributes of the informal career progression process and that not all women will feel alienated from it, it remains that the dominant nature of the process is male. Thus, it is important to consider what implications the choices found may have on women IT managers' career progression and on the women themselves.

The potential outcomes of these different choices are considered in detail in the concluding chapter (section 11.4.3). However, a more general implication, that of the gendered informal career progression process is considered here first.

This section has argued that the informal process derives both the existing structures and cultures of an organisation. It has demonstrated how formal career progression procedures may fuel the development of the informal process. It has suggested that this occurs because existing organisational cultures and structures are themselves gendered. Therefore, the implication of this is that, unless the core structures and cultures of an organisation are analysed for their potential gender attributes and influences and are re-designed without such gender attributes, any formal policy or procedure aimed at eliminating bias may be ineffective, as it too may be inherently gendered.

Under this heading, the ways in which a lack of formal structure can lead to informal practice and that informal practices continue even in the presence of formal structure has been shown. The informal career progression process has also been identified here as containing male attributes within it, that may adversely effect more women than men IT managers as they progress their careers. These results have arisen within organisations, each of which have equality policies and structures in place. The following section reviews the scope of these polices and considers their role and influence on the IT managerial career progression process.

10.5 The Role and Influence of Equal Opportunities

10.5.1 Context and Definition

The liberal approach to women in management emphasises the importance of organisational equality structures that help ensure women are not discriminated against within an organisation, including during career progression (Davidson and Cooper, 1992; Blau and Kahn, 1991). Many proponents of equality policies within the liberal approach argue that once the structures are in place to meet women's demands, for example, for child care and flexible working, many of the barriers to women progressing to and within management will fall (Fenn, 1978; Venables, 1981).

This thesis, together with the radical approach to women in management has criticised the liberal approach for regarding the problems and therefore solutions to enabling more women to become managers as being almost wholly situated in the need for formal equality structures. In placing such faith in these structures, which have also been criticised for addressing the symptoms rather than causes of inequality, the liberal approach also fails to address wider and more deep rooted influences in society which are mirrored within organisations (Liff, 1989; Ashburner, 1994).

Whilst criticising the liberal approach, this thesis has also acknowledged it has been successful in achieving many of the policy changes it has sought, even if the changes may have had surface rather than deep rooted impact in many cases. This is in contrast to the radical approach which often fails to achieve its desired changes, sometimes even alienating the women it is trying to help (Hacker, 1989). Whilst the liberal approach undoubtedly has many flaws, its language has become accepted by organisations and therefore, it is argued here, should not be dismissed. It

is for this reason that this study briefly reviewed the equality structures in place within each of the case companies and considered their influence on the career progression process. In addition, other influences on career progression, highlighted by the respondents, that may be gendered in nature but not addressed by the equality structures, were also considered.

10.5.2 Evidence

Each of the 4 case companies had established equal opportunities policies and undertaken several initiatives aimed at improving opportunities for women employees and ensuring discrimination does not occur within recruitment, training and career progression procedures. Only IT Co had paid specific attention to the career progression process to see if it did contain gender bias. They concluded that the overall process was not gender biased, but that women could benefit from training to improve self confidence in their ability and help enable them to better promote themselves. IT Co also stated that they actively encouraged women to apply for IT posts. The other companies had taken no specific moves to encourage women to enter IT. IT Co in particular, were also beginning to address how attitudes and behaviours may adversely effect women's experience and equality within the company.

In 3 of the case companies — Utility Co, Retail Co and IT Co, the respondents were aware that their organisations had an equal opportunities policy. In Utility Co and IT Co, knowledge of the different initiatives appeared well spread amongst the respondents. In Finance Co IT managers were less aware of their company's equality efforts. Two women stated that they did not think the company had an equal opportunities policy and only 3 men were certain that it did.

Even where the companies had policies in place, e.g. flexible working and women's returner schemes, the experience of some women in the sample showed that schemes were still sometimes subject to an individual manager's approval, did not always satisfy the women's needs and may, where practised, negatively influence progression chances.

For example, 1 woman manager in Utility Co felt that in practice it would be a lot harder to operate or even progress as a manager if working part-time. This perception had contributed to this woman manager deciding not to have children. Her perception was demonstrated by the experience of another woman manager who had discovered Utility Co were only willing to operate management posts on a full time basis.

More informal difficulties not covered by policy or procedures also faced some of the women IT managers in the sample. For example, within Retail Co, 1 woman who returned part time after maternity leave decided to work from the company's data centre in West London, rather than the Head Quarters in central London as it was closer to her home. However, this manager felt that because she had not worked on the implementation of a major high profile IT development,

which took place at Head Office, she had forfeited opportunities for progression, as she perceived such experience was considered important for progression.

In Finance Co, 4 of the 5 women managers interviewed described the company culture as aggressive and male. One woman manager explained how this culture was manifest in the type of team building events that took place, which were male oriented, such as cricket or golf. Two other women managers described the male culture in the way they were perceived by male colleagues. One described how she was often asked to be the secretary in all man meetings. She also felt that she was accepted as a colleague by the men IT managers because she appeared acceptable in her image to them. That is, she was petite and slim. The other woman manager described how she had been prevented from participating in a project in Japan, even though she had volunteered, because of her manager's paternalistic concerns that she should stay with her husband.

The importance placed on technical skills in IT Co influenced women's work experience in the organisation. One woman IT manager explained how she had felt unable to take a career break after having a child as she felt IT Co would view her technical knowledge as outdated and therefore redundant. The manager herself felt that such detailed knowledge and skills were unnecessary at the IT management level. Once having returned after maternity leave, the woman manager found her immediate manager very unsympathetic to her child care responsibilities, often calling meetings at 5.30pm, making combining work and family more difficult for her. In all of the case companies, the long hours that managers had to or were expected to work were identified by some men and women respondents, such as the one above, as presenting difficulties for women in particular in combining family and work.

The research results confirm other studies proposing that informal as well as formal factors exist within organisations, preventing women progressing their careers, which are often attributable to culture, behaviour and attitudes (Mills, 1988; Marshall, 1984; Cassell and Walsh, 1993; Franklin, 1985). Also that the formal policy approach to equal opportunities may have little effect in practice in meeting women's demands and addressing the root causes of inequality (Liff, 1989; Ashburner, 1994).

10.5.3 Explanations

The case study results showed that whilst each of the companies had implemented equality policies and initiatives, in only 2 of the organisations did interviewees appear to be aware of them. It may be suggested that knowledge of equality structures was higher in IT Co and Utility Co because the issue was given a higher publicity profile in order to raise awareness and understanding of its importance.

It is argued here, however, that in light of this study's results, the bias addressed by the case organisations are perhaps being considered within the context of the existing male status quo. The processes and procedures themselves do not appear to have been truly scrutinised by the companies for gender bias. The processes appear to be taken as a given and it is women that are being scrutinised to see if they have the ability to conform to the status quo. In this way, as Marshall (1984) and Cassell and Walsh (1993) have already argued, women are being asked to change themselves in order to fit in with the prevailing structures and cultures. Only then, may they be considered for progression. A clear example of this can be seen in IT Co where, instead of considering the appropriateness of profile raising in the career progression process, women are identified as having a need to increase their self confidence in order to help them better promote themselves.

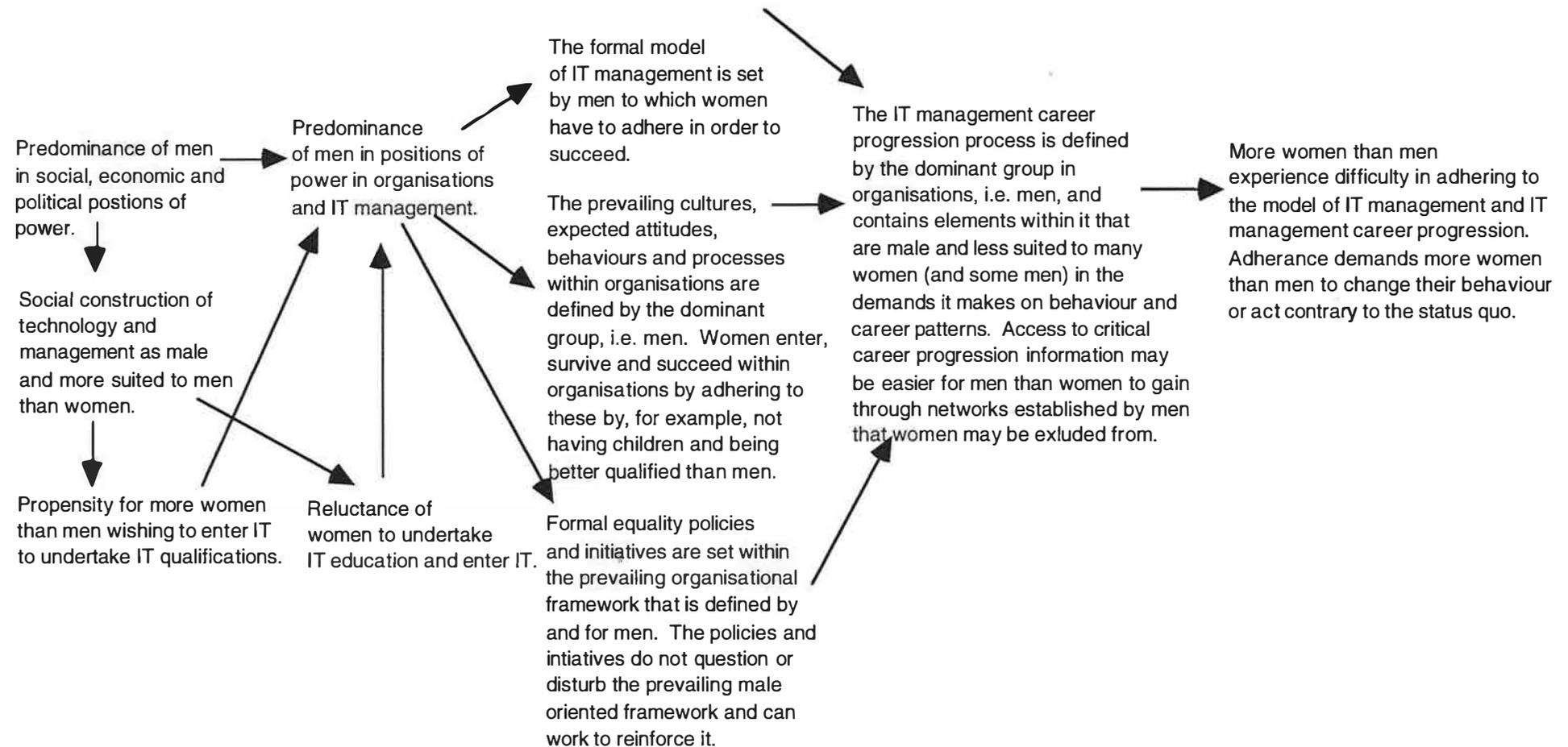
The lack of attention paid by the organisations so far through their equality approaches to the influence of male cultures, attitudes and behaviours, it is proposed here, may help to explain the isolated incidents described by this study's women interviewees of unequal treatment or opportunity. It is important to note that whilst IT Co stated their acknowledgement of the importance of assessing organisational cultures, attitudes and behaviours, their work in this area was at too early a stage to judge if and how gendered processes had been addressed.

10.5.4 Implications

It has been argued here that the formal policy approach to equal opportunities has not yet addressed more informal gendered aspects of the career progression process in particular, and of the organisation in general. Without addressing gendered aspects, the policy approach is in danger of perpetuating the male status quo and failing to question its appropriateness. It may place demands on some women to change themselves in order to survive and succeed in the organisation and it may do so in the name of equal opportunities.

The question, therefore, is whether the policy approach is capable of addressing gender within the companies and, where sites of gender production are found, instigating real and sustainable change. It is on this issue of change that the following concluding chapter concentrates.

Figure 11.1 Explanations for the Different Ways in Which Women and Men Experience the IT Managerial Career Progression Process



11.3 The Theoretical Framework

This thesis has demonstrated the way in which three literature areas could be brought together under a single theoretical framework. It has also highlighted the contribution such a combined approach makes to undertaking a gender analysis of the IT managerial career progression process.

A framework for linking the three areas of literature was formulated by identifying three themes relevant to the research question that ran throughout the literature reviewed. The themes identified were:

- the predominance of men in social, economic and political positions of power;
- informal organisational factors;
- formal organisational factors;

Table 11.1 presents the way in which the theoretical framework was applied in analysing the empirical research results. The strengths of the framework are illustrated within the table. It shows how the gender and IT debate and women in management literature in particular were both essential in understanding the research results and their implications.

Social constructionist theory within the gender and IT debate, whilst not applied at the management level in the past, proved that it had an important contribution to make at this level. It provided a strong basis for understanding the gendered role and influence of technology in relation to skills, qualifications and progression within different industry sectors. However, this study's results clearly showed that once women had gained entry to IT management positions, their career progression was also likely to be influenced by formal and informal organisational factors. Consequently, both women in management and career progression literature provided the background from which the influence of different factors on the IT management career progression process could be explored.

Social constructionist theory within radical women in management literature made an important contribution in understanding how the gendered nature of management and skills associated with managers influenced the career progression experience of women as compared with men. In addition, the relevance and importance of theory being developed on the gendered nature of organisations (e.g. Acker, 1992) proved essential as part of the framework in conducting a gender analysis of the IT management career progression process.

Thus, it is concluded here that in order to gain a full understanding of the gender implications of the IT managerial career progression process, it is essential to include theory relevant to each aspect of this process. By definition this spans gender and IT, women in management and career progression theory.

Table 11.1 Outline of How the Theoretical Framework Was Used in Analysing the Research Data

| REPRESENTATION OF MEN AND WOMEN IN IT MANAGEMENT | | |
|--|--|---|
| Predominance of Men in Social, Economic and Political Positions of Power | Formal Organisational Factors | Informal Organisational Factors |
| Liberal women in management & gender and IT debate: more women will begin to feminise the IT management role and facilitate other women entering. | Liberal women in management: organisational structural barriers, e.g. lack of child care and flexible working prevents women progressing to IT management positions. | Radical women in management: the gendered nature of organisation may erect informal barriers preventing women's advancement up the career ladder. |
| Radical women in management and gender and IT debate: the predominance of men in IT and in social, economic and political positions of power inhibits change as this creates social norms portraying women as less suited than men to technical and managerial work. Predominance of men may obstruct structural change in an effort of men preserving their own position. | Liberal women in technology: as some companies demand IT qualifications and experience, more women need more access to IT training. | Career progression: the informal nature of the promotion process may favour men over women. |
| Social Constructionists: social and cultural images of technology as male may deter women from entering IT and also women managers from crossing into IT even through they have the skills being demanded. The male image may adversely effect women's confidence, particularly if they have no IT experience or education. | Radical women in management: the nature of the IT management role, where no part-time working or career breaks are the norm may make it more difficult for women to enter and succeed. | Radical women in management: women have to adjust to the male model of management, which in IT includes no part-time working or career breaks. |
| Social constructionists: social images created of manufacturing and engineering industries as more suited to men than women and men, in order to maintain these industries for themselves, may serve to obstruct women's entry. | | |

| THE ROLE AND | IMPORTANCE OF EXPERIENCE | TECHNICAL TRAINING |
|---|--|--|
| Predominance of Men in Social, Economic and Political Positions of Power | Formal Organisational Factors | Informal Organisational Factors |
| <p>Liberal women in technology: social images of technology as male have deterred women from undertaking IT education, causing them to fall behind men in their understanding of it.</p> | <p>Liberal women in technology: the shift in demand from technical to business and interpersonal skills will encourage and enable more women to enter IT management.</p> | <p>Radical women and technology and women in management: socially constructed images, reflected in organisations of women being less suited than men to technical or managerial work leads to additional pressure on women to obtain qualifications to gain entry and prove themselves. As the requirements for technical skills shift to business and interpersonal skills, men may appropriate expertise in these skills for themselves.</p> |
| <p>Radical women and technology: skills are not the source but the symptom of the problem of women in IT management</p> | | |
| <p>Radical women and technology and women in management: predominance of men in IT and socially constructed images of women as less suited than men to IT and to management leads to additional pressures on women to prove themselves through gaining IT qualifications.</p> | | |

| THE THEORY AND PRACTICE OF PROMOTION | | |
|--|--|---|
| Predominance of Men in Social, Economic and Political Positions of Power | Formal Organisational Factors | Informal Organisational Factors |
| Radical women in management: If women wish to succeed in management they have to adhere to male model of management dictated by men, the dominant group in organisation. | Career progression: the lack of formal promotion procedures leads to informal processes to replace them. | Radical women in management: gendered theories of organisations show processes, structures etc. in organisations previously thought to be gender neutral may be sites of gender production. |
| | | Career progression: career progression process is often highly subjective and may lead to gender bias, adversely effecting more women than men. |
| | | Radical women in management, career progression: cultures and traditions of organisations provide the source of informal promotion process and these cultures and traditions are shaped by the dominant group in the organisation, i.e.. men and are themselves gendered. |
| | | Career progression: attribution theory suggest that women attribute their success more to hard work and men to ability which may effect promotion success. |
| | | Career progression: women have to network with men and may be excluded from men's networks. |
| | | Radical women in management if women wish to succeed in management they have to adhere to the male model of management. |

| THE ROLE AND INFLUENCE OF EQUAL OPPORTUNITIES | | |
|--|---|---|
| Predominance of Men in Social, Economic and Political Positions of Power | Formal Organisational Factors | Informal Organisational Factors |
| Radical women in management, career progression: the predominance of men in positions of power in organisations provide the model for management and management progression, which remains unquestioned, women have to adhere to this in order to succeed. | Liberal women in management: the importance of organisational equality structures to ensure women are not discriminated against and organisations meet women's needs. | Radical women in management, career progression: informal factors exist in organisations, preventing women from progressing their careers which are attributable to the culture, behaviours and attitudes existing within the organisation. |
| | Radical women in management: equality structures address the symptoms rather than causes of inequality. | |

Whilst the need to draw on three different areas of literature in order to understand the research question has been demonstrated in this thesis, there may be some who find the inclusion of both liberal and radical viewpoints within women and management and gender and IT theory problematic. Indeed, such questioning is both reasonable and to be expected. The liberal and radical approaches share common concerns — the position of women in the workplace and working within the field of IT; the quality and quantity of women's work; how women are valued and developed; the dual burden of women in undertaking paid and unpaid domestic work etc. However, the understanding of the causes and potential solutions to these concerns differ widely (see Chapter 3).

With particular reference to the research question in hand, this study has shown how IT management positions and the IT managerial career progression process are both gendered. This thesis has argued that in order to understand the source and continuation of gender divisions and gendered processes at the IT management level a view which looks beyond the organisation as an independent entity must be adopted. That is, the role of unequal power relations between men and women in the social, political and economic spheres that have maintained men's power position throughout history and continues through capitalism is central to this understanding. It has supported the view that the socially constructed links between masculinity and technology, management and leadership, historically documented (Cockburn 1985) and witnessed within this study, fall from mens efforts, conscious or subconscious to maintain such an imbalance. The literature has shown how such efforts result in women being

deterred from entering computer related education (e.g. Dain, 1988; Culley, 1986; Hoyles, 1988). It showed examples of struggles taking place between men and women over women's segregated position in lower hierarchical levels and as users rather than managers of technology by perpetuating the mythical stereotype that women do not possess technical competence (Cockburn, 1983; Sundin, 1995; McNeil, 1987). Also, examples were provided demonstrating how assigning value to the same skills used by men and women becomes a gendered process with women expected to have good interpersonal skills but men being rewarded for them (e.g. Woodfield, 1994; Poynten, 1993).

In the case of IT managers, this thesis has shown how women often work to try and overcome the 'masculine - link' barrier, perhaps by becoming better qualified than men or by delaying or choosing not to have children in order to avoid any career breaks, or perhaps by choosing to accept the gendered demands the organisation makes on them in order to progress their careers. The choices, actions and reactions of women that this research has highlighted supports the argument that women are not simply 'done to' in this process, but play an active part in it (Wajcman, 1991). Such activity, together with the changing nature of the IT management role within a wider social, economic and political context that is also shifting, shows too the opportunity for change in terms of gender-technology relations.

Thus, in understanding the root causes and explanations for the phenomena found within the research, this thesis adheres to the radical theoretical perspective within both women in management and the gender and IT debate. However, as stated in the Introduction, this thesis is also concerned with practical change and it is here that tension begins to occur once more between the liberal and radical approaches. As a researcher with a more radical theoretical viewpoint and at the same time working closely with organisations, this is a tension that is deeply felt.

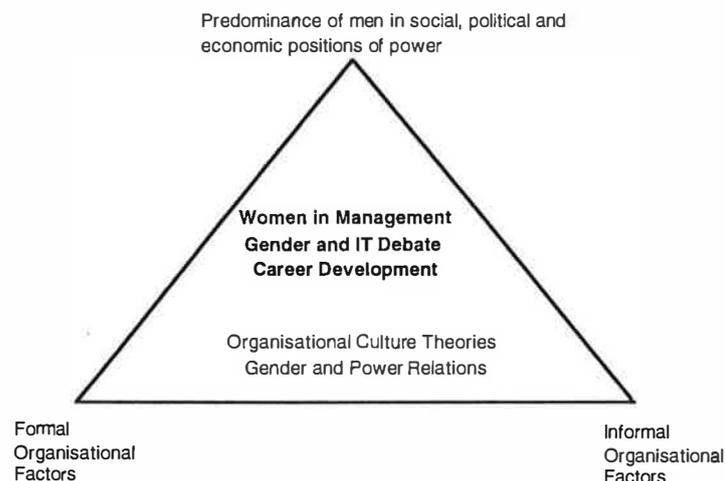
The liberal view reflects the approach to gender adopted currently within many organisations and specifically within the four case study companies included within this study. As the next section details, there are several problems associated with the liberal approach to change when viewed from a radical perspective. That is, whilst changes have been achieved through this approach, they largely address the symptoms of inequality between the sexes rather than the root causes and have consequently been criticised here as elsewhere as being incapable of invoking effective and sustainable change. Certainly they have not addressed the gendered nature of the IT management role and IT managerial career progression process highlighted within this thesis. Yet, the liberal approach has managed to establish a dialogue with organisations on gender issues and represents, in many cases, the current starting point from which change must be viewed and should not be overlooked.

Therefore, the challenge appears to be one of taking some lessons from the radical literature and translating them into policy statements that can be accepted and implemented at an organisational level within the economic sphere. It may be argued that this is an impossible challenge and that change should be approached within other spheres or that women should withdraw to establish their own sense of worth and power first (e.g. Marshall, 1984). Whilst this thesis supports the call for change taking place within the political and social spheres concurrently with change directed within the economic sphere, it does not support the argument for women to withdraw. Indeed, it is the optimistic view of this researcher that attempts to introduce a more radical approach to change within the organisational setting should be made. The way in which the radical perspective might begin to be reflected in change strategies directed specifically at organisations is explored in the following section. However, first suggestions for how the theoretical framework might be expanded are made.

This thesis has concluded that the combining of different literature areas is required in understanding the gender implications of the IT managerial career progression process. At the same time, it is also acknowledged here that the limitations of the theoretical framework in its current form, lie in the limited breadth of theory it covers.

In reviewing the research results, it has become clear that this area might benefit from the incorporation of further literature into the framework in order to increase depth of understanding of the gender implications of the IT managerial career progression process. Two aspects emerged from the results in particular that deserve closer attention, namely networking and organisational culture. The gendered aspects of organisational cultures and the gender implications of power relations within and outside organisations — between men, between women and between men and women, highlighted by the results on networking, might both be usefully added to existing literature areas within the framework (Figure 11.2).

Figure 11.2 The Future Development of the Theoretical Framework



Feminist theory has continually addressed issues of power during its development⁷⁸. However, the challenge in this particular field of research remains to relate theories of power to the experiences of women IT managers as they progress their careers. The results highlighted in this thesis suggest that power in this setting has many dimensions including hierarchical power relations, power based on knowledge and networks as well as power relations between men, between women and between men and women.

Similar to theories of organisations, in general, specific organisational culture theories have not traditionally addressed its gender implications. However, this research has supported previous work (e.g. Cassell and Walsh, 1993), highlighting the gendered aspects of organisational culture. There appears a need for researchers to re-examine cultural theory to account for the persistence of male advantage in the same way organisational theories have begun to be re-examined (e.g. Calás and Smircich, 1989; Burrell, 1984; Acker, 1990).

11.4 Strategies for Change

The focus of this research has been to draw out the different factors effecting the career progression of women and men IT managers. However, throughout the thesis, highlighted in the literature review in particular, the importance of relating the results to change strategies has also been expressed.

The difficulty in formulating effective strategies for change has also been discussed. The problems associated with the liberal approach to change, which tends to locate the source of change for increasing the number of women IT managers in organisational structures and increased access to technical skills of women, have been identified. That is:

- it may be too simplistic to view the organisation as an entity, independent from the wider social and political environment that is alone capable of invoking effective and sustainable change;
- organisational equality policies and structures are formulated in the context of existing organisational cultures and structures and often do not question them. Consequently, women rather than the organisation are being asked to change in order to fit with the prevailing status quo;
- the view that more women will be employed as IT managers because they have the new interpersonal skills being sought is essentialist and determinist (Henwood, 1992);

However, it has also been acknowledged that the liberal approach can boast some success. Perhaps because it does not seek to threaten the status quo, the liberal approach has been accepted by many organisations who have undertaken equality change programmes (McGwire,

⁷⁸ For example, feminist theories of patriarchy and capitalist relations (Vogel, 1983; Millett, 1977; Barrett, 1980; Beechey 1979; Eisenstein, 1979). For an overview of these theories refer to Walby, 1986(a).

1992). The view of this thesis is that whilst such changes are positive they face severe limitations because they do not challenge the status quo within or outside the organisation. Consequently, we see companies, such as IT Co, who have a commitment to equal opportunities and gaining more women IT managers, failing to recruit women and progress women IT managers. In addition, we see all of the companies included in this study providing evidence of behaviours, attitudes and informal processes that continue to negatively impact on more women's IT managerial career progression experience than men's.

Yet, the radical approach to change is also subject to criticism. Whilst it is argued here that the radical view of the sources of inequality are more valid than those proposed by the liberal view, the radical approach in practice can often work to alienate both organisations and the women it is trying to help in its approach to change (Hacker, 1989). However, it may be argued that such alienation is a function of radical change and is not sufficient reason for abandoning it. Therefore, it appears important in considering any strategy for change, to attempt to strike a balance between liberal and radical approaches, capitalising on the strengths of each, whilst minimising their weaknesses. An attempt to do this is made in the following suggestions for change which focus on how to overcome the negative implications of the gendered nature of the IT management role and career progression process. Three aspects of change are considered, namely:

- networking;
- skills;
- women as agents of change.

11.4.1 Networking

At the start of this chapter the gendered nature of the IT managerial career progression process was described. Section 11.2.2 showed that many of the gender attributes are associated with and emanate from the focus on networking that was apparent in each of the case companies. That is, networking was the means by which IT managers gained career progression information and advertised themselves and their successes in order to obtain support for their progression. Thus, it is networking that this thesis suggests should also be the focus for change.

Literature has also in the past, pointed out the importance of networking for fitting in and getting on in organisations (Graddick, 1984; Clegg, 1981). It has argued that women are often unaware of its importance or, if aware, not as good as many men at networking (Davidson and Cooper, 1992; Dreher and Ash, 1990). Therefore, the literature argues, women need to develop better networking skills.

This research has shown that women are very much aware of the importance of networking, particularly in progressing their careers. However, some find the mode of networking - promoting

themselves to senior mostly male managers, uncomfortable. In addition, there is evidence to suggest that women may be excluded from gaining career progression information through male networks. However, it is argued here that it is wrong to assume that networking as it appears to be currently operating in the case companies, is the right way to progress IT management careers and gain career progression information and that women must learn to network more effectively. Instead, it is argued that the appropriateness of the whole concept of networking, for organisations, men and women, should be questioned.

Put simply, networking appears to be about ensuring senior IT managers, who have an influence on progression, know who you are and think well of you and your work. It appears from the four case studies that the onus is on an individual IT manager to ensure this happens. Thus, the real skill being looked for may become not one of producing good work and results, but of advertising them. It is quite possible that extremely capable and effective staff fail to progress because they do not have the personality and character that enables them to promote themselves. It is argued here that by relying on informal networking, that operates within male oriented organisational structures and cultures, organisations may not in fact be progressing IT managers with the formal skills and attributes they seek, such as leadership, human resource management, business knowledge and strategic skills. Instead, career progression may favour individuals that have skills in being ruthless, politically aware, confident and arrogant.

This thesis suggests that a major part of the problem of networking lies with the responsibility the case companies place on an individual to promote themselves. This was reinforced by concepts such as 'managing upward' and 'managing your own career'. Each of these appear to create an environment where senior IT managers no longer have a responsibility to seek out and observe individuals at work and consider their strengths and potential. Instead, individual IT managers are demanded to present their strengths and potential to senior IT managers. The relationship and responsibility, it is argued here, should be more of a reciprocal one.

This thesis acknowledges that there is a sound basis for a number of different managers assessing an individual's performance and their suitability for career progression. For example, it helps avoid any positive or negative bias between an individual IT manager and their immediate manager. It also helps to ensure that IT managers are considered not only on their own achievements, but in relation to the ability of IT managers across a division. However, it is proposed here that in order to avoid some of the negative impacts on women and some men of the current gendered networking process, formal procedures should replace existing informal practices and the process become more transparent. In addition, the role and appropriateness of networking as a pivotal point in the career progression process should be questioned.

It is important that this proposed change is considered in the context of wider organisational influences. This thesis has argued that organisations, created and dominated by men in

positions of power, contain widespread gendered cultures, policies, structures and processes. The gendered nature of the organisation, it has been proposed, may restrict the success of any strategy to improve equality between men and women. It follows, therefore, that the change to networking proposed here may only succeed if it is part of a much wider framework that addresses and seeks to change sites of gender production within an organisation⁷⁹. To undertake such a process will be a radical change for most organisations. Indeed, the change may well be rejected by many men in positions of power, from whom it must be led, if they believe that it will threaten their power position or produce radical change. At present, some of the most senior directors in organisations lead equality initiatives, perhaps in the safe knowledge that any change will be conducted within the framework of the status quo. To lead a questioning of the status quo and call for its change undoubtedly takes a pioneering and innovative leader that is willing to move with the change.

11.4.2 Skills

This thesis has also demonstrated the current state of change the four case companies appear currently to be in regarding skills demanded of IT managers. True to the IT literature which is calling for a greater emphasis on business and interpersonal skills in IT managers, IT Personnel within the four companies were demanding these rather than technical skills. However, as many of the IT managers interviewed had progressed to their position before this change was called for, most had a technical background. Some men but no women had been recruited as IT managers with no technical qualifications or background. Indeed, opinion was also divided amongst the IT managers as to whether they could be effective without having gained technical experience. In addition, within IT Co, where technical knowledge was at the heart of their business, technical skills and experience were still very much demanded.

It is suggested therefore, that IT divisions are still feeling their way in balancing the demand and need for technical, interpersonal and business skills. Ultimately, this balance may be influenced by the core business of an organisation or more informally, its cultural and traditional emphasis on technical skills.

A time may come, however, when we see two entry points into IT, one at the staff level, another at the management level. At the staff level, technical qualifications for programming and analyst roles will continue to be demanded. At the managerial level recruits may be drawn from analysts and programmers but also from business managers who, with their knowledge of the core business of the organisation or industry and their ability to bridge the boundary between IT and other divisions, will cross over into the field.

⁷⁹ Research and workshops within the Centre for Research in Innovation Management (CENTRIM) at the University of Brighton exploring how equality and diversity issues may be integrated into organisations have begun to build an agenda and framework for organisational change which seeks to remove sites of gender production (Shapiro and Austin, 1994).

As the previous analysis chapter suggested, an effect of the IT management role becoming increasingly associated with general business and specific interpersonal skills, may influence the gender-technology relations at that level. Whilst men may become regarded as experts in interpersonal skills, it is perhaps unlikely that women will lose their association with them. Thus, the gender divisions of skills in this area may become blurred. Whilst women still face the socially constructed stereotypes of their suitability for management positions, any shift in the gender image of IT management remains an important one.

The above paragraphs have suggested how the demand for skills in IT managers may change and that this may also lead to changes in gender and technology relations. It was also emphasised, however, that such changes may not necessarily lead to more women IT managers as many other influences and barriers also exist. Thus, the change called for here is directed at the liberal women in technology approach, to move away from a focus on technical skills as the only barriers and source of change in increasing the number of women in IT and IT management. Whilst skills are undoubtedly an important currency in the IT managerial career progression process, it is evident that technical skills alone may not carry the highest value.

11.4.3 Women as Agents of Change

This section has considered change in overcoming the negative impact of the gendered IT managerial career progression process on women by addressing networking and skills. In so doing, it has addressed change in some way at the level of the organisation and society. However, any discussion of change should also consider the role of the individual woman in the change process. This study has clearly shown that women are not only aware of the informal career progression process, but also make choices about their behaviour and action based on their knowledge of it. The previous chapter showed how proportionately more women than men in this study chose either to reject or strike a compromise with the perceived demands of the informal career progression process in the way they behaved and approached career progression. It is important to consider what the implications of these choices are for change in terms of women IT manager's career progression.

Figure 11.3 illustrates the suggested possible outcomes. Firstly, it is possible that women who accept and adhere to the informal career progression process may enjoy the same progression opportunities and similar success as men. However, in so doing, they may decide not to have children and may in some cases have to behave in ways which are uncomfortable for them. However, this is perhaps a too simplistic analysis of a more complex problem to say that by joining men on their terms women will be perceived as and receive equal treatment. The more deep rooted images of women as less technically able and less suited to power and decision making positions than men may remain intact. At the same time, by accepting and joining the male based informal career progression process, it is suggested here that these women may only be helping to perpetuate it in the long term, without achieving any real change.

Does change lie, therefore in the choice of compromise? As Figure 11.3 notes, it is suggested here that some change may be achieved in this way if women are able to continue to behave differently to an extent and reach senior positions where, if they continue to behave differently, some change may be instigated. This suggestion follows a more liberal argument and to date there is little evidence available to support the notion that this result will occur. What may also be likely is that whilst women may refuse to change their behaviour either partially or completely, they may in fact lose out on career progression opportunities, as was some women's view in this study.

If change is not achieved through these women's actions and the male informal career progression process continues, there is also a danger, as indicated in the Strober and Jackman (1994) study that women, frustrated at seeing no future for themselves and gaining little or no career path help, will leave the organisation.

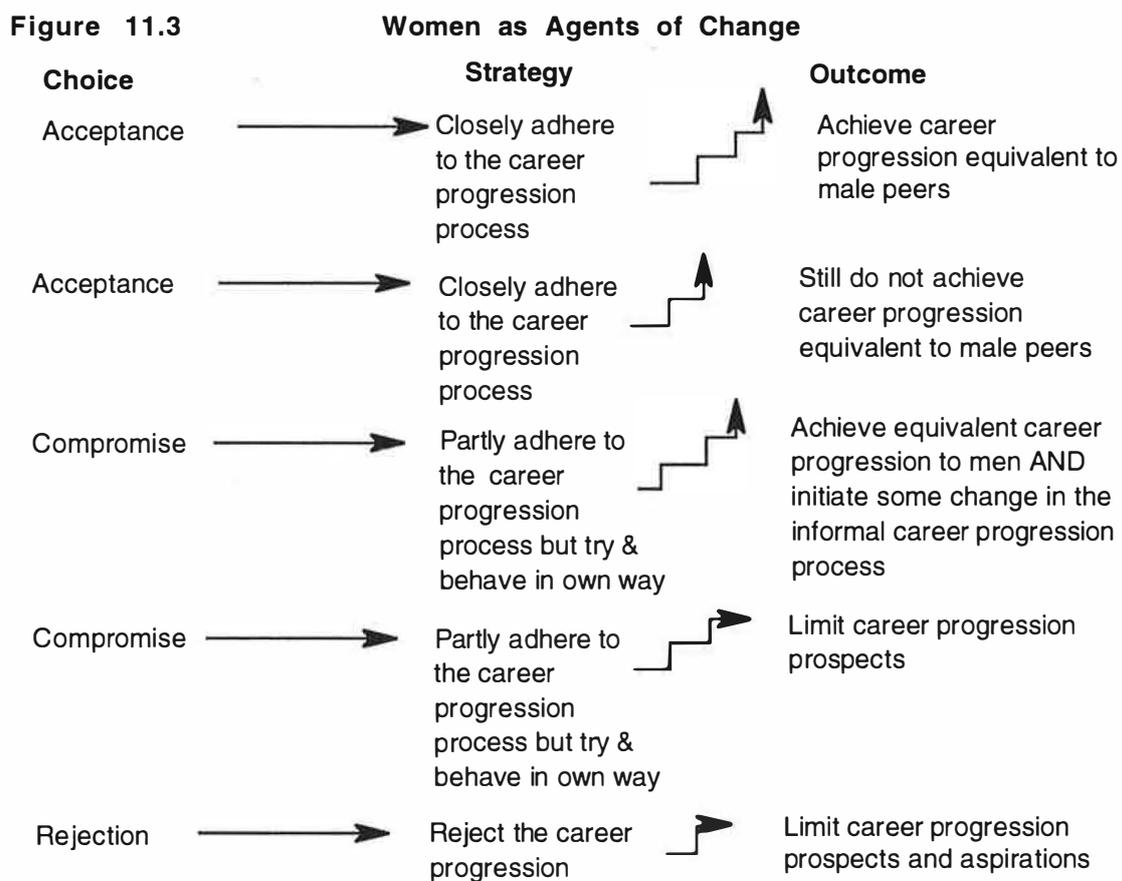


Figure 11.3 offers not so much a strategy for change as a framework for analysing how change may occur. The following section considers how such a framework may be used in future research.

11.5 Suggested Future Research

This research, in presenting how men and women IT managers experience and perceive the career progression process, has identified a number of different factors influencing their career progression. It has addressed factors, both formal and informal within the organisation, as well as some in the wider social environment. In so doing, this research has overcome many of the gaps and weaknesses it identified in the existing literature (Section 3.5).

In order to obtain the detailed and previously unexplored data, by definition the approach taken to this research was in-depth and small scale. Only four case studies and a questionnaire limited in scope and geographical area were undertaken. It is significant, however, that the results arising from the four cases, which were drawn from different sectors, had many commonalities. It is therefore important to expand the research in order to test the validity of the results on a wider scale. In addition, there were certain areas that the research did not address in depth, for example, the influence of an individual's home life on the career choices they made or how change to overcome the problems identified may be approached. In light of these limitations areas for further research are proposed below.

i) Expanding the Theoretical Framework

In order to further explore and analyse the gender implications of IT management career progression and address the need for change, this research has called for the expansion of the theoretical framework. The areas of literature suggested as relevant to include within the framework are: theories of gender and power relations and cultural theories of organisations. It is suggested that both of these fields of literature are analysed to the extent they contribute to the existing three framework themes or call for further themes to be added. It should be noted that theories of organisational culture themselves require gender analysis, as in general, the original theories have been formulated in a gender-blind manner. The work of feminists such as Acker (1992); Calás and Smircich (1989) and Hearn et al (1989) may be drawn on in particular to help guide the gender analysis of the organisational culture literature.

ii) Testing the Validity of Identified Factors Influencing Men and Women's IT Managerial Career Progression

This study has identified a number of factors, formal and informal, within and outside the organisation, that it proposes, influence the career progression of women as compared with men IT managers. It has also argued that the factors produce a gendered process of IT managerial career progression. There is a need for these factors and their gendered nature to be tested for validity on a wider scale.

It is suggested that a survey method is adopted to test IT manager's perceptions and experiences of career progression. The survey should test the validity of the key findings of this research, namely:

- the number of men and women IT managers present at different hierarchical levels;
- the qualifications (IT and other) of IT managers;
- the skill experience (IT and business) of IT managers;
- family status of men and women IT managers;
- the extent to which IT managers believe IT experience is necessary in order to conduct their job roles effectively;
- the extent to which IT managers perceive different skills and attributes influence successful career progression in their organisation, including: leadership; project management; teamwork, human resource management; communication, business knowledge; strategic skills; assertiveness; networking skills; technical skills; being known by and thought well of by senior managers; good performance over time;
- the extent to which respondents agree with the importance they perceive their organisation places on different skills and attributes;
- the extent to which respondents try to perform well at/enact the different skills and attributes;
- to test if respondents network and if so, the extent to which they use the methods identified in this research (Table 10.12);
- how knowledge was gained about the formal and informal career progression process.

The survey could be used to test influences on IT manager's career progression within organisations within or across industry sectors.

iii) Men and Women's Experience of IT Career Progression Over Time

This study focused on the career progression experience of women as compared with men IT managers. It showed how women, more than men, make choices about their behaviours and approach to career progression, based on the information and experience they have gained. This thesis has proposed a model suggesting what the future outcomes of these choices may be (Figure 11.3). The phenomenon of gaining information and experience over time, which shapes an individual's approach to their career, highlights the need for more longitudinal research in this field. It is suggested that such research should track the development of individuals in IT from staff through to senior management positions. The influences, informal and formal within the organisation, the influence of social construction of technology, as well as those in the external environment including family influences, should be documented. In this way, the career progression experience and way in which information is gained by women as compared with men, can be traced throughout the work life cycle of an IT employee. The choices they make and any behaviour changes as they move into and through management can be noted. In particular, this research could help identify specific and generic factors that may lead to particular career outcomes, which may include leaving an organisation or progressing through to senior management.

iv) Introducing Change Through Action Research

The previous section highlighted two areas for change in order to reduce the current gendered nature of the IT management career progression process. One concerned the need to formalise the networking process. The other concerned the potential of further opening up IT management positions to business managers as well as programmers and analysts.

An organisation that relies on networking in the career progression process - formally or informally and is concerned about its gender effects would be appropriate to engage in an action research mode. The project would aim to increase the transparency of networking and reduce its pivotal role in the career progression process. The objective would be to ensure that career progression is based on skills formally sought by an organisation rather than an individual's ability to access and thrive within networks.

An action research project could also explore with an organisation their need for different technical and business skills at the IT management level. If a greater need for business skills and experience are found to be required, the research could develop a programme that would facilitate the entry of business as well as technical staff to the IT management role, incorporating any technical training found to be needed.

Appendices

Appendix I

Research Questionnaire

***Please follow the instructions provided when completing this questionnaire.
*All information will be treated as confidential**

Section 1 - Company Details

1. Please State:

Company Name:.....

2. Please State:

Job Title:.....

3. Please State:

Length of time you have been working for this company (in years):

.....

4. Please State:

Length of time you have been in your present job:

.....

Section 2 - You and Your Job

5. Do you have any experience of using any of the following IT skills?
PLEASE PLACE AN X IN THE RELEVANT BOX(ES),

System Development ()

System Maintenance ()

Software Engineering ()

Programming ()

Analysis Design ()

Network Support ()

Analysis Programming ()

Writing Specifications ()

Implementation ()

Feasibility Studies ()

System Programming ()

Customer/User Support ()

System Testing ()

Quality Assurance ()

Standards ()

Adhering to any design methodologies eg. SSADM or LSDM2 ()

Other (please state):

6. What are the key tasks that you carry out in your present job? e.g. project planning, system programming

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

7. What are the key skills that you use in your present job? e.g. communication, co-ordinating, presentation skills

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

8. Have you, at any time, ever worked in an area of work other than IT? eg. Marketing or Law

PLEASE INDICATE WHAT AREAS OF WORK YOU HAVE HAD PREVIOUS EXPERIENCE IN.

.....
.....

9. Which of the following types of qualifications have you attained?

PLEASE PLACE AN X IN THE RELEVANT BOX(ES),

- Post Graduate ()
- Graduate ()
- A'Level ()
- O'Level ()
- C.S.E. ()
- BTec ()
- HND ()
- HNC5 ()
- S'Level ()
- None of the above ()
- Other (please state):.....

10. Which of these qualifications contained Information Technology as an element within the course?

PLEASE PLACE AN X IN THE RELEVANT BOX(ES),

- Post Graduate ()
- Graduate ()
- A'Level ()
- O'Level ()
- C.S.E. ()
- BTec ()
- HND ()
- HNC5 ()
- S'Level ()
- None of the above ()

Other (please state):.....

11. On average, how many hours do you work per day?

..... hours per day

12. In general, which of the following statements best describes your work hours?

PLEASE PLACE AN X IN ONE OF THE BOXES

- I am sometimes able to work at home. ()
- I work flexible hours. ()
- I am usually able to limit my work hours to roughly 9 - 5.30pm, Monday - Friday. ()
- I normally start work before 9am and finish after 5.30pm, Monday to Friday. ()
- In addition to working weekdays, I also work some weekends. ()

Other (please state):.....

13. How would you rate yourself within the department in terms of seniority?

PLEASE PLACE AN X IN ONE OF THE BOXES

lower end of seniority () () () () () upper end of seniority

SECTION 3- Personal Details

14. Please state:

PLEASE PLACE AN X IN THE APPROPRIATE BOX

(i) Sex: Male () Female ()

(ii) Your age:.....

15. How many people, including yourself, are there currently living in your household?

PLEASE PLACE AN X IN THE APPROPRIATE BOX

0 () (please leave out question 16 and then continue the questionnaire)

1 ()

2 ()

3 ()

4 ()

5 ()

More than 5 ()

16. How many of the members of your household, including yourself, fall within each of the following age ranges?

PLEASE PLACE A NUMBER IN THE APPROPRIATE BOX(ES)

under 5 ()

6 -10 ()

11-15 ()

16-20 ()

21-30 ()

31-40 ()

41-50 ()

51-60 ()

over 60 8 9 ()

Section 4 - Your Department

17. How influential are the following factors in enabling you to progress your career within your organisation?

PLEASE PLACE AN X IN THE RELEVANT BOX FOR EACH FACTOR

| | not very influential | | | very influential | |
|---|----------------------|-----|-----|------------------|-----|
| Seniority; | () | () | () | () | () |
| Achievement of objectives; | () | () | () | () | () |
| Working extra hours; | () | () | () | () | () |
| Participation in outside work hours social events; | () | () | () | () | () |
| Participation in after work hours events on behalf of the organisation; | () | () | () | () | () |
| Knowing the right people; | () | () | () | () | () |
| Other (please state). | | | | | |

.....

.....

18. How many men and women, including yourself, are there in your department ?

PLEASE DO NOT INCLUDE SECRETARIAL OR ADMINISTRATIVE STAFF

Number of men:.....Number of women:.....

19. How many men and women are there, including yourself, on your level of seniority within your department ?

Number of men:.....Number of women:.....

20. A SPACE IS PROVIDED BELOW IF YOU HAVE ANY FURTHER COMMENTS.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE.

Appendix II Questionnaire Covering Letter

«name»
«title»
«company»
«address 1»
«address 2»
«address 3»
«address 4»
«address 5»

date

Dear «name 2»

Factors Effecting the Career Progression of Men and Women IT Managers

I am a researcher at the Centre for Research in Innovation Management (CENTRIM) within the University of Brighton Business School. This questionnaire forms part of an independent study examining how men and women managers working within the field of Information Technology (IT) progress their careers.

Information Technology (IT), has been identified as having an important role in enabling the organisation to maintain competitiveness in the demanding and dynamic business environment of the 1990s. Therefore, ensuring the effective development of managers of Information Technology is a crucial factor to business competitiveness and profitability. The research seeks to establish the factors involved in IT managerial career progression. It also compares the experience of men and women within the career progression process.

Your company has been carefully selected from 150 companies to act as a sample for the research. As a representative of your company, **your response will make a valuable contribution towards a final analysis of the factors that influence managerial career progression within the field of Information Technology.** I would be grateful if you could take the time to complete the questionnaire attached and return it to me in the pre-paid envelope provided. The questionnaire will take you, at most ten minutes to complete. **All the information you provide will be treated in the strictest confidence.**

If you would like more details about this project or have any queries about the questionnaire, please do not hesitate to contact me at the above address.

Thank you for your help and interest.

Yours sincerely,

Gillian Shapiro
Researcher

IT Interview Schedule**Career History**

- 1 . Can you give me a brief sketch of how you come to be currently working in Information Technology ?
 - qualifications (academic, professional)
 - previous jobs (different organisations worked for)
 - change of industry ?

Job

- 2 . Please briefly explain your current job role
 - area of work e.g. systems development, implementation, maintenance etc.
 - type of technical work
 - number of staff (male and female) reporting to them
 - who do they report to (and gender)
 - in general, what hours do they work
- 3 . What skills do you employ in your current job role?
 - interpersonal, managerial, communication etc. AND/OR technical

Future Career

- 4 . What do you see happening in your job / career in the next 5 years ?
 - are there plans to progress your career - if not, why not ?
 - are there any factors or changes that would help you progress or make you want to progress your career further ?
 - do you see yourself staying in IT or changing departments ? / moving from technical?
- 5 . How do you progress your career within Company X?
 - if interviewee responds with formal procedures, then....

- a) Do the career progression procedures work as you have just described in practice?
If 'no', please describe how they do work in practice
Have you always known this is how to get on here?
When and how did you find out?
- b) Do you think there are particular personal attributes or behaviours that are regarded as important within Company X to progress?
- what are the attitudes and behaviours?
- have you always known that these attributes constitute what is important to get on here?
- when and how did you find out?
- 6 . Does knowing how career progression works in practice and the behaviours and attributes looked for in career progression process effect
- a) your career aspirations within the company?
- b) the way in which you behave / interact with colleagues within the company?

Equal Opportunities

- 7 . Are you aware of any policies or initiatives this company has on equal opportunities?
- describe the initiatives / policies
 - are there any initiatives specific to IT?
 - how did the interviewee become aware of the policies / initiatives?
- * **if possible, ascertain age and family status**

Personnel Interview Schedule

IT Personnel Policy

1. Please explain the structure of the different IT functions within Company X.
2. Are formal procedures in place relating to career progression within IT ?
 - do procedures differ between managerial and non-managerial levels?
 - do the same procedures apply to both the managerial and technical career paths?
 - explain procedures and/or provide documentation
3. Do the career progression procedures differ to those used within management levels in other parts of the business?
 - if yes, please give brief details of other procedures used (or provide documentation)
4. In terms of IT personnel policy, what skills, if any, have been identified as necessary for managers to possess? eg. technical, communication, project management etc.
 - do the skills differ between the managerial and technical career paths?
5. Are the IT management skills identified different to the skills required by managers in other parts of the business? If yes, please state the skills required by managers outside of IT.
6. What, if any, skills, behaviours or attributes are looked for in managers progressing careers within IT? (examples of behaviours or attributes may be - good team leader, good networker etc)
 - do the skills, behaviours or attributes differ between those on a technical or managerial career path?
7. Do you envisage the type of skills, attributes and behaviours demanded from IT managers changing in the future?
 - if yes, how and why?

IT Internal Labour Structure

8. How many levels of management are there within the IT function?
9. Please give details of the number of men and women currently present within the different hierarchical levels of the IT function.

Equal Opportunities

10 Does X have an equal opportunities policy? (/diversity strategy?)

- When was the equal opportunities policy first introduced ?
- What are the objectives of the equal opportunities policy ?

11 Please give brief details (e.g. objectives, participants, overview of method used to carry out the initiative and results) of any initiatives that have taken place within the company that have contributed towards achieving the policy's equality objectives for women.

12 Have any initiatives specific to IT aimed at further developing equal opportunities between men and women been undertaken within X (or are any planned)?

Appendix IV Example of Coding System Used in Analysing IT Co Data

Career Path

| | | |
|--------------|---|--|
| CP: IT Res | - | Previous IT Research Jobs held |
| CP: IT Entry | - | How respondents came to enter the It field |
| CP: Edn | - | Qualifications gained |
| CP: Op | - | Previous IT operator jobs held |
| CP: Supp | - | Previous IT support job held |
| CP: Pre-IT | - | Jobs held prior to entering IT field |
| CP: Co Hist | - | History of jobs held within the company |
| CP: prog | - | Previous IT programming job held |
| CP: IT Ed | - | IT related qualifications gained |

Job Role

| | | |
|-----------|---|--|
| Jr | - | Description of job role |
| Jr: staff | - | Number of male and female staff working for the respondent |

Skills

| | | |
|----------------------|---|--|
| Sk: Res | - | Research skills |
| Sk: Tech | - | Technical skills |
| Sk: Bus | - | General business skills |
| Sk: Dev | - | How IT skills were developed |
| Sk: Comm | - | Communication/presentation skills |
| Sk: Gen mgt | - | General Management / project management skills |
| Sk: Need for tech | - | Need for technical skills |
| Sk: non-tech | - | Skills perceived as non-technical |

IT Background

| | | |
|-------------|---|--|
| IT: Bus rel | - | Descriptions of relations between IT function and the rest of the business |
| IT: Struc | - | Descriptions of the IT function structure |
| IT: hist | - | Descriptions of the historical context of the IT function |

Company Background

| | | |
|---------------|---|--|
| Co: Cult: | - | Descriptions of company culture |
| Co. Fut | - | Descriptions of future challenges and changes facing the company |
| Co: Back Info | - | Background general information about the company |

Career Progression

- Cpr: Pers Int - Personal interpretation of career progression experiences
- Cpr: Fut - Future career aspirations
- Cpr: Inf Char - Informal career progression characteristics
- Cpr: Visibility - Descriptions and experiences of visibility
- Cpr: form - Formal policy information relating to career progression
- Cpr: proj - the perceived importance of projects in gaining career progression
- Cpr: Real - Realisation of information formal and informal relating to career progression
- Cpr: Choice - Choices made about behaviour and actions following knowlegde of career progression procedures and characteristics
- Cpr: pers mot - Personal motivation for gaining career progression

Peronal Profile

- PP: h/l - Hierarchical level
- PP: fam stat - Family status

Equal Opportunities

- EO: Awar - Awareness of equality policies
- EO: Gen - General comments relevant to equal opportunities
- EO: gend split - information indicating the gender split in IT function
- EO: form pol - Formal policy on equal opportunities

Hours

- Hrs - Information about working hours within the company

Chapter 11: Conclusion

11.1 Introduction

This thesis has presented the results of a gender analysis conducted on the career progression of IT managers. In so doing, the study has addressed the original objectives set, which were to:

- explore formal and informal organisational factors effecting the career progression of women compared with men IT managers;
- begin to assess the extent to which different organisational settings may impact the career progression experience of women compared with men IT managers;
- develop a theoretical framework with which to analyse the research results by drawing together theories from three areas of literature, namely women in management, gender and IT and career progression.

In drawing conclusions from the results and analysis of this research, this chapter considers four elements, including:

- i) the gendered nature of the IT management role and the IT managerial career progression process;
- ii) the applicability and use of the theoretical framework;
- iii) proposed strategies for change;
- iv) suggestions for future research.

11.2 The Gendered Nature of the IT Management Role and the IT Managerial Career Progression Process

The previous chapter considered both explanations for and suggested implications of the results that emerged from the study's questionnaire and four case studies. It is concluded here that the results show many aspects of the IT management role and the process of IT managerial career progression to be gendered.

Gendered is being used here as an adjective to describe requirements, policies and processes that are set in place by organisations or that IT managers perceive the organisation demands. Such skills, behaviours or working patterns, for example, are gendered because they are more commonly associated with masculinity or femininity and therefore often as more appropriate for men or women. In addition, for whatever reason, they may be easier for men than women to follow and adhere to. Gendered requirements and processes, this research has found, may lead to more women than men changing their behaviour and undertaking action in order to overcome any negative stereotypes that may be applied to them. As many of the explanations in the previous chapter showed, skills and behaviours that are more commonly associated with men or masculinity may have become so, not due to biological reasons, but due to socially constructed

images of masculinity and femininity and types of work that men or women are regarded as being more suited to. However, the result of gendered requirements and processes may be a division of labour or hierarchy between men and women, so that reality reflects the socially constructed gender images.

11.2.1 The Gendered IT Management Role

An image is drawn within this section of a gendered IT management role. The descriptions are based on perceptions and experiences found within this study of the role's suitability to full-time work and the skills associated with it.

The case study results provided evidence to suggest that the IT management role is regarded within the four companies as one which can practically only be conducted on a full-time and continuous basis. Although the equality policies within the four firms stated their commitment to part-time work where appropriate in order to help employees combine work and family lives, it appears that many IT managers do not view part-time work as appropriate to the IT management position. This study did not explore whether it was feasible for IT management roles to be conducted on a part-time basis. However, evidence of the general opinion that they cannot suggests that women IT managers wishing to progress their careers on returning from maternity leave, for example, may not practically have the option to work part-time⁷⁷. Similarly, evidence emerged from the case studies to suggest that IT is a field viewed by many IT managers as one which is fast changing and consequently unsuited to an individual taking a career break from it. Indeed, both the questionnaire and the case studies showed that fewer women than men had children, thereby avoiding career breaks and the part-time work issue.

An important point to note here is that the gendered image of the IT role occurs even in companies with equality policies that promote opportunities for part-time working and career breaks. This illustrates the contradictions that can appear between policy and its implementation in practice. It also confirms the criticism this thesis has directed at the liberal approach to women in management that it is too simplistic to view formal organisational policies alone as sufficient to overcome inequalities between men and women IT managers as they progress their careers.

It is also suggested that the skills associated with IT management contribute to the gendered nature of the role. The issue of skills demanded by the IT management role is a complex one. Traditionally, companies have expected IT managers to bring technical skills and experience with them to the post. This thesis argues that socially constructed images of women as less suited and able to undertake technical work have, in the context of this study, led more women than men to undertake IT qualifications before entering the field. In so doing, it is suggested that

⁷⁷ Reflected in this argument is evidence showing that more women than men work part-time (Skills and Enterprise Network, 1993; 1994),

women aim to overcome their stereotypical image and prove their technical ability, both to themselves and to men.

More recently, the IT field has called for firms to concentrate on demanding and developing business and interpersonal skills in their IT managers. This, the rhetoric claims, will enable organisations to more closely align IT divisions with their core business and enjoy the strategic benefits IT has to offer (Nolan, 1983; Wysocki and Young, 1990). The four case studies show that IT Personnel departments are demanding business and interpersonal rather than technical skills from IT managers. Yet, opinion was divided amongst IT managers interviewed as to whether their role could in fact be conducted effectively without having gained technical experience. Whether technical or business and interpersonal skills will become in more demand at the IT management level still remains to be seen. This thesis has argued, however, that even if business and interpersonal skills become more strongly associated with the IT management role, the skills process may remain gendered. This is because in the current environment, where men are dominant in organisations, it is possible that they may claim the interpersonal skills, such as communication and listening as a strength and trait of their own. Even if such skills are equally associated with femininity and women, women may continue to face the negative impact of the socially constructed image that they are less suited than men to management and leadership roles (Marshall, 1984; Howe and McRae, 1991; Sekaran and Leong, 1992; Schein et al, 1989).

11.2.2 The Gendered IT Management Career Progression Process

The previous chapter showed how not only were there many aspects of the IT managerial career progression process in the four case studies that may be described as informal, but that many were also gendered.

This study has shown how in addition to the skills and attributes stated as formally looked for by the case company's IT Personnel departments in progressing IT managers, the interviewees also perceived that significant importance was placed on a range of other characteristics. It is many of these characteristics, which included being ruthless, arrogant and politically aware, that it is proposed here, are gendered. That is, they carry with them socially constructed images of being masculine skills and more commonly associated with men than women (Kaufman, 1989; Reskin and Phipps, 1988).

In addition, the interviewees felt that it was important to fit in with the company cultures and adhere to company values. Chapter 10 showed how some evidence was drawn from each case study to support the view that organisational cultures, their values and structures were designed by men and may be described as largely masculine in nature (Acker, 1992; Cassell and Walsh, 1993). The perception amongst the interviewees, that they are expected to fit in, therefore, demands that women fit themselves to masculine cultures and structures created by men (Marshall, 1984).

It was also evident from the case studies that, despite the implementation of complex career progression procedures in Retail Co and IT Co, more informal procedures prevailed, some of which were encouraged by the formal procedures. In particular, these centred around the importance of networking for gaining essential information and support from senior IT managers for career progression.

The gendered nature of networking was demonstrated in the research results. They showed how more women than men felt uncomfortable with promoting themselves and their successes, but did so because of its perceived importance. It showed women negotiating a networking relationship with men. It also indicated that women may, in line with previous study's results, be excluded from men's information networks (e.g. Kanter, 1977; Graddick, 1984; Dexter, 1985; Tierney, 1992).

The impact of the gendered informal IT management career progression process was demonstrated clearly in the choices women made, based on the information and experience they had gained, on how to behave and approach career progression. This study showed how more women than men, because of their negative impressions and experience of the gendered career progression process, tended to seek a compromise with it, acting as far as possible in ways they felt comfortable with, without they hoped, jeopardising their progression prospects. In a minority of cases women wholly rejected the perceived behavioural and procedural demands of the informal career progression process.

Whilst the majority of women in the sample did choose to accept and adhere to the perceived career progression demands, this was often a very conscious decision, driven by career progression aspirations and described in some cases to involve conscious changes in behaviour. In contrast, the majority of men did not articulate their adherence to the progression process as a conscious choice. The behaviour and action required by the process appeared more as part of their tacit knowledge.

Figure 11.1 provides a summary of the process described in this section that this thesis suggests takes place in producing the gendered IT management role and career progression process and the potential outcomes of it for men and women IT managers.

Appendix V Examples of Tables Used in Analysing Retail Co Case Study

Future Career Aspirations

| Code | M/F | H/L | Aspire to Promotion | Comments |
|------|-----|-----|---------------------|---|
| 1 | F | 5 | NO | not too ambitious, would be unrealistic, if she thinks she can do it. |
| 2 | F | 4 | YES | but with a limit - don't want to be an executive - don't like the look of what they have to be like and do. |
| 3 | F | 5 | UNSURE | Certainly not beyond 4 because beyond that is too far removed from working with a team |
| 4 | M | 3 | NO | Unrealistic to think it will happen |
| 5 | M | 7 | YES | But not sure whether want to go technical or managerial route |
| 6 | M | 6 | YES | But unsure in what direction |
| 7 | F | 7 | YES | To a team leader role |
| 8 | M | 5 | YES | But don't know if it will happen |
| 9 | M | 6 | YES | |
| 10 | F | 3 | NO | Feels exhausted and doesn't like what you have to be like in the band above. Not sure if she has the ability. |
| 11 | F | 5 | NO | Feels that having had children has prevented her doing some of the prerequisite things the company demands to progress, therefore feels it is unlikely. |
| 12 | M | 6 | UNSURE | Not sure whether wants to get higher, doesn't really like what has to do and be like at band above, not ambitious. |

How Awareness of Informal Characteristics was Developed

| Code | M/F | H/L | How Awareness Developed | When Awareness Developed |
|------|-----|-----|--|---|
| 1 | F | 5 | communicated by line manager, watch & learn | As approached band 5 |
| 2 | F | 4 | communicated by line manager | As approached band 4 |
| 3 | F | 5 | just picked it up, when needed to promote someone below them | As approached band 5 |
| 4 | M | 3 | watch and learn | About a year after joining the firm (working in stores) |
| 5 | M | 7 | communicated by line manager | About a year after joining the firm |
| 6 | M | 6 | just picked it up, by not being promoted | About a year after joining the firm |
| 7 | F | 7 | watch & learn | Very soon after joining the firm |
| 8 | M | 5 | just picked it up | Very soon after joining the firm |
| 9 | M | 6 | communicated by line manager, watch & learn | just picked it up |
| 10 | F | 3 | watch & learn, other women managers, | |
| 11 | F | 5 | After first maternity leave | Experience, picked it up |
| 12 | M | 6 | communicated by line manager | Band 8 |

Key: M/F = Male/Female
H/L = Hierarchical Level
Code = The code assigned to each interviewee in the case study

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