ABSTRACT

Organisational science research into determinants of effective organisational performance has suggested a link between organisational climate and effectiveness. The central aim of this thesis is to investigate this possible link, by examining the extent to which organisational climate factors are discriminating between ‘above’ and ‘below’ average performance companies.

Two United Kingdom manufacturing industry sectors were chosen for investigation. One sector from the ‘Sunrise’ and one from the ‘Sunset’ industries i.e. those industries showing respectively above and below the average performance of all manufacturing industries in the United Kingdom. The chosen sectors were Electronic Component Manufacturers (Sunrise) and Hosiery & Knitwear Manufacturers (Sunset). The research design utilising method and data ‘triangulation’ involved the gathering of data from a sample of 40 companies i.e. 10 with ‘above’ and 10 with ‘below’ average performance for their respective industry sector.

The multi-dimensional Perceived Work Environment (PWE) climate instrument was used in this research. The resulting survey data were analysed statistically for differences and relationships across the six climate and three performance measures for the 40 companies. Additionally eight of the survey companies i.e. two from each of the ‘above’ and ‘below’ average performance levels of the two sectors, underwent deepening interviews, and discourse analysis. For validation purposes four case studies were conducted, two from each of the industry sectors used, with companies who had not participated in the survey.

The results showed that most of the climate dimensions are both positively and significantly related to each other, and to organisational performance. The majority of the climate dimensions showed significant differences between ‘above’ and ‘below’ average performance companies in both industry sectors. Further support for the impact of organisational climate on performance is suggested from the analysis of discourses from the deepening interviews.

Implications for management practice and research are discussed, including the possibility of employees’ perceptions being influenced by outsiders. Such influences might be explored in future research through ‘Agency’ or ‘Expectancy-Value’ theories.

Finally, the thesis suggests that further research is needed into whether climate perceptions are a consequence rather than a cause of organisational performance. Some evidence was found that suggests the relationship between organisational climate and performance could be interactional and in either direction depending on contextual features.
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>1</td>
</tr>
<tr>
<td>Contents</td>
<td>2</td>
</tr>
<tr>
<td>List of Tables</td>
<td>4</td>
</tr>
<tr>
<td>List of Figures</td>
<td>5</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>6</td>
</tr>
<tr>
<td><strong>Section 1 - OVERVIEW:</strong></td>
<td></td>
</tr>
<tr>
<td>1.1 Introduction</td>
<td>7</td>
</tr>
<tr>
<td>1.2 Organisational Climate &amp; Performance -</td>
<td>8</td>
</tr>
<tr>
<td>Movements &amp; Variations on a Theme</td>
<td></td>
</tr>
<tr>
<td><strong>Section 2 - INTRODUCTION</strong></td>
<td></td>
</tr>
<tr>
<td>2.1 Introduction</td>
<td>9</td>
</tr>
<tr>
<td><strong>Section 3 - ORGANISATIONAL CLIMATE FACTORS IN BUSINESS:</strong></td>
<td></td>
</tr>
<tr>
<td>3.1 Introduction</td>
<td>20</td>
</tr>
<tr>
<td>3.2 Individual and Organisational Behaviour Theories</td>
<td>29</td>
</tr>
<tr>
<td>3.3 Empirical Research &amp; Relevant Theory</td>
<td>50</td>
</tr>
<tr>
<td>3.4 General Proposition</td>
<td>81</td>
</tr>
<tr>
<td>3.5 Operational Hypothesis</td>
<td>81</td>
</tr>
<tr>
<td><strong>Section 4 - METHODOLOGY:</strong></td>
<td></td>
</tr>
<tr>
<td>4.1 Introduction</td>
<td>82</td>
</tr>
<tr>
<td>4.2 Development of Theoretical Framework</td>
<td>82</td>
</tr>
<tr>
<td>4.3 Operationalisation</td>
<td>97</td>
</tr>
<tr>
<td>4.4 Sample &amp; Procedure</td>
<td>104</td>
</tr>
<tr>
<td>4.5 Pilot Study</td>
<td>110</td>
</tr>
<tr>
<td>4.6 Dimensions</td>
<td>111</td>
</tr>
<tr>
<td><strong>Section 5 - RESULTS &amp; ANALYSIS:</strong></td>
<td></td>
</tr>
<tr>
<td>5.1 Introduction</td>
<td>115</td>
</tr>
<tr>
<td>5.2 Presentation of Results</td>
<td>116</td>
</tr>
<tr>
<td>5.3 Analysis of Relationships</td>
<td>117</td>
</tr>
<tr>
<td>5.4 Summary of Overall Findings from Seven Tables of Correlation Matrices</td>
<td>132</td>
</tr>
<tr>
<td>5.5 Analysis of Differences</td>
<td>134</td>
</tr>
<tr>
<td>5.6 Summary of Overall Findings from Analysis of Differences (Tables 8-11)</td>
<td>143</td>
</tr>
<tr>
<td><strong>Section 6 - DEEPENING INTERVIEWS &amp; DISCOURSE ANALYSIS:</strong></td>
<td></td>
</tr>
<tr>
<td>6.1 Introduction</td>
<td>145</td>
</tr>
<tr>
<td>6.2 Procedure</td>
<td>146</td>
</tr>
<tr>
<td>6.3 Deepening Interviews &amp; Discourse Analysis</td>
<td>152</td>
</tr>
</tbody>
</table>
### LIST OF TABLES

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Means, SDs and correlations matrix for all variables on whole sample.</td>
<td>118</td>
</tr>
<tr>
<td>5.2</td>
<td>Means, SDs and correlations matrix for all variables between Electronic Component Manufacturers.</td>
<td>120</td>
</tr>
<tr>
<td>5.3</td>
<td>Means, SDs and correlations matrix for all variables between Hosiery &amp; Knitwear Manufacturers.</td>
<td>122</td>
</tr>
<tr>
<td>5.4</td>
<td>Means, SDs and correlations matrix for all variables within above average performance - Electronic Component Manufacturers.</td>
<td>124</td>
</tr>
<tr>
<td>5.5</td>
<td>Means, SDs and correlations matrix for all variables within below average performance - Electronic Component Manufacturers.</td>
<td>126</td>
</tr>
<tr>
<td>5.6</td>
<td>Means, SDs and correlations matrix for all variables within above average performance - Hosiery &amp; Knitwear Manufacturers.</td>
<td>128</td>
</tr>
<tr>
<td>5.7</td>
<td>Means, SDs and correlations matrix for all variables within below average performance - Hosiery &amp; Knitwear Manufacturers.</td>
<td>130</td>
</tr>
<tr>
<td>5.8</td>
<td>Differences between above and below average performance companies in the Electronic Component Manufacturing Industry.</td>
<td>135</td>
</tr>
<tr>
<td>5.9</td>
<td>Differences between above and below average performance companies in the Hosiery &amp; Knitwear Industry.</td>
<td>137</td>
</tr>
<tr>
<td>5.10</td>
<td>Differences between above average performance companies in the Electronic Component and the Hosiery &amp; Knitwear Manufacturing Industries.</td>
<td>139</td>
</tr>
<tr>
<td>5.11</td>
<td>Differences between below average performance companies in the Electronic Component and the Hosiery &amp; Knitwear Manufacturing Industries.</td>
<td>141</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Organisational Climate and Performance: Movements and Variations on a Theme</td>
<td>8</td>
</tr>
<tr>
<td>4.1</td>
<td>A Motivation and Climate Model of Organisational Behaviour</td>
<td>89</td>
</tr>
<tr>
<td>4.2</td>
<td>A Subjective Model of the Determinants of Motivated Behaviour in Organisations</td>
<td>91</td>
</tr>
<tr>
<td>4.3</td>
<td>A Systems Model of Organisational Functioning</td>
<td>93</td>
</tr>
<tr>
<td>4.4</td>
<td>A Causal Model of Organisational Performance and Change</td>
<td>95</td>
</tr>
<tr>
<td>8.1</td>
<td>Relationships between Behaviour (B), Environment (E) and Person (P) as suggested by Lewin (1935) and Schneider (1987)</td>
<td>235</td>
</tr>
<tr>
<td>8.2</td>
<td>Direction of Influences in the Relationships between Organisational Climate and Organisational Performance accommodated in the models used in this study</td>
<td>236</td>
</tr>
</tbody>
</table>
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SECTION 1: OVERVIEW

1.1 Introduction

The purpose of the overview is to act as a template (see Section 1.2) which helps guide the understanding of the research design, methodological procedures and other implications involved in this study. The starting point of the overview - The Problem - which forms the basis of the research question, has been informed through pre-understanding and experience gained not from rigorous observations, but by the author's perception of reality gained from participation in both general management and management consultancy. Such pre-understanding and experience, which is not contradicted in the literature, and characterised in terms of what is 'out there', concerns the different performances of companies within the same industry sectors, as yet unexplained by conventional theories of Management, Marketing, Finance, Structure, Leadership and Strategy. Examples of such refutation concerning 'Marketing' and 'Strategy' theories which have helped inform this study come from Baker & Hart (1989) - Marketing; and Patterson & West (1998) - Strategy.

The author's original activity involved seeking alternative perspectives regarding the nature of the problem, through different schools of thought. The aim is to reconcile perceptions based on pre-understanding and experience with such a theoretical concept as organisational climate, and what relationships might exist, particularly with organisational performance.
Section 1.2

ORGANISATIONAL CLIMATE AND PERFORMANCE: MOVEMENTS AND VARIATIONS ON A THEME

Figure 1.1

THE PROBLEM
Different performances of companies in the same industry sector - Unexplained by conventional theories of
- Management
- Marketing
- Finance
- Structure
- Leadership
- Strategy etc. etc.

Section 2

THE PROBLEM
Different performances of companies in the same industry sector - Unexplained by conventional theories of
- Management
- Marketing
- Finance
- Structure
- Leadership
- Strategy etc. etc.

Section 3

INFLUENCE OF ORGANISATIONAL CLIMATE
Certain organisational climate factors are suspected of being discriminating between the two levels of company performance.

Section 4

METHODOLOGICAL CONSIDERATIONS

THEORETICAL FRAMEWORK

Section 5

SURVEY QUESTIONNAIRE
40 companies from 2 industries

STATISTICAL ANALYSIS

Section 6

DEEPENING INTERVIEWS & DISCOURSE ANALYSES
8 companies from the survey companies

DISCOURSE ANALYSIS

Section 7

CASE STUDIES (VALIDATION)
4 companies from the same industries as used in the survey (but not participants in the survey). The cases were selected for the relevant and compelling issues they could illustrate.

Appendix F

PROJECT VALIDATION INTERVIEWS
2.1 Introduction

The original idea for this piece of research grew out of the author's experience in general management and a long standing interest in attempting to understand, through the use of a more theoretical base, the processes involved in managing change in dynamic market-place companies and why some companies were more successful at it than others.

The character of an organisation's internal work environment (particularly as perceived by the organisational member) has long been recognised as a potent influence on employees' cognitions', affect and behaviour. While much work has been done in the field of understanding organisational performance and the underlying objective determinants (e.g. organisational contextual features such as structure, technology and size) and also research to understand the more subjective concept of organisational climate and 'what' constitutes climate (the content) and 'how' it works or can be changed (the process); little research has been found in the literature that identifies discriminating influences that organisational climate may have on objective organisational performance. Where studies have taken place they have tended to concentrate on 'growth' (sunrise) industries. Baker and Hart (1989) suggested that such an approach could often mean that it is difficult to say whether companies are successful because of their organisational climate or in spite of it.
The 'people' dimension of, for example, 'implementation of business strategy', has too often been seen as a 'soft' issue, as compared to the 'hard' issues of technology, finance and so on. Industrialists are now recognising the need to change that mind set. The challenges are to create new measures for human performance as well as explicit links between human organisational environment, human performance and business performance. This approach to organisational management requires a disciplined approach to the human performance aspects of change and a break from the old perception of human performance as soft and unmeasurable. In particular it demands that drawing from the body of knowledge that exists about human behaviour, methods, tools and techniques, are identified and exploited.

People spend a great portion of their lives in organisations - schools, churches, government, corporations, etc. The way an individual behaves in an organisation depends on what kind of person they are and what kind of organisation they are in. This, of course, is a re-statement of the Lewinian proposition that behaviour is a function of the person and their environment and the often cited equation $B = f(P,E)$. For Lewin (1938) ($B$) was the result of interaction between the person ($P$) and their immediate psychological environment ($E$) i.e. an interactionist perspective and in line with Schneider (1987) who postulated that Environment was a function of the person and behaviour i.e. Environment ($E$) = $f(P,B)$. The implications of this statement for the study and understanding of a person's behaviour in the organisational context are that the facets of the person and facets of the person's organisational environment should
be studied to examine their main effects and their interaction effects on human
behaviour in organisations.

The triology of formulae can be completed with the transposition to $P = f\ (E,B)$. No
attempt has been made in this study to examine the influence on the individual
personality resulting from behavioural and environmental influences such as might be
explained through 'Personality' and 'Learning' theories. An example of such influence is
compatible with the work of Milgram in his behavioural study of obedience (1973) and
obedience to authority (1974), which illustrates the degree to which peoples' character
changes such that they will behave in a way that their environmental role requires. It
has been suggested by Stevens (1975) that the prevailing ideology will exert an
important influence on attitudes and/or provide support for a range of different
relationships within the prevailing environment.

Lewin's concept of behaviour as the product of individuals acting in context has
provided the conceptual framework for climate research. Use of the term *organisational
climate* and elaboration of this principle in organisational research began during the
and Stringer (1968), Forehand (1968), and Campbell, Dunnette, Lawler and Weick
(1970) all presented formulations that specified a number of dimensions of
organisational climate. Tagiuri and Litwin's (1963) collection of essays is possibly the
most widely cited and presents the range of perspectives extending from climate as an
objective set of system characteristics (Evan, 1968) to climate as the interaction of system and individual characteristics (Forehand, 1968). Tagiuri and Litwin offered the following conceptual definition,

"Organisational climate is a relatively enduring quality of the internal environment of an organisation, that (a) is experienced by its members, (b) influences their behaviour, and (c) can be described in terms of the values of a particular set of characteristics (or attitudes) of the organisation" (p.27).

In the interdisciplinary field variously known as organisational behaviour, the distinction between individual unit data and aggregate unit data is often blurred. There would also seem to be value in examining the interaction of organisational and individual variables which would hopefully improve the guidelines for defining and selecting environmental variables relevant to the study of the climate or climates within an organisation (Evan, 1968; Payne & Pugh, 1976; Emery et al, 1996).

"The utility of a concept such as "organisational climate" may be judged with the aid of at least two standards: (1) Does it help us perceive phenomena hitherto not perceived or identify problems hitherto not identified? (2) Does it link up with other concepts in organisational analysis, thereby generating empirically testable propositions and contributing to the development of theory? Whether the concept of organisational climate is scientifically useful in terms of these two standards may be considered an open question. What is manifestly not an open question is
whether the concept is phenomenologically real. People do sense and react to the climate of an organisation whether they belong to it or not.”

(Evan 1968, p.107).

The social psychological reality of this concept is not unrelated to the "Thomas theorem" -

"If men define situations as real they are real, in their consequences."

(Merton, 1957, p.421).

René Descartes built his philosophy on the premise he held to be indisputable, the existence of himself as a thinking subject: "Cogito ergo sum" ("I think therefore I am") which he argued in his 'Discourse on Method' (1637).

If one is to develop several potentially testable propositions concerning an organisation's climate and to exploit the phenomenological reality of the concept of organisational climate, and its relationship to behaviour/performance, consideration needs to be given to placing the concept in relation to what other researchers have proposed concerning the organisational construct of climate as well as (where appropriate) the often associated other organisational concept organisational culture.

For the purpose of accounting for the behaviour of individuals or groups, Renato Tagiuri saw organisational climate,

"being useful as a concept that stands between the broadest concept of environment on the one hand, and the more specific ones, field, behaviour
setting, situation, conditions and circumstances, on the other hand. It is roughly at the same level as ecology, milieu, culture, system, and atmosphere." (Tagiuri, 1968, p. 21).

An example where the concept of organisational climate has been defined operationally comes from Christie and Merton (1958) following their study of the values, climate or 'climate of values' in medical schools. They suggest,

"It is true that we often find ourselves speaking of 'climates' and 'atmospheres' of a climate conducive to research or of an atmosphere conducive to learning. Everyone senses what is meant by these expressions. Some recognise that these need not be treated as only figures of speech, that they need not remain meteorological metaphors. But if climates of values are to be examined and methodologically related to the ways in which they affect the learning of students, then methods must be developed to describe and compare them." (p.127).

Tagiuri (1968), in supporting moves towards an operational definition, ascribed to organisational climate the following attributes:

- **Climate is a molar, synthetic concept (like personality).**
- **Climate is a particular configuration of situational variables.**
- **Its component elements may vary, however, while the climate may remain the same.**
- **It is the meaning of an enduring situational configuration.**
Climate has a connotation of continuity, but not as lasting as culture.

Climate is determined importantly by characteristics, conduct, attitudes, expectations of other persons, by sociological and cultural realities.

Climate is phenomenologically external to the actor, who may, however, feel that he contributes to its nature.

Climate is phenomenologically distinct from the task for both observer and actor.

It is in the actor's or observer's head, though not necessarily in a conscious form, but it is based on characteristics of external reality.

It is capable of being shared (as consensus) by several persons in the situation, and it is interpreted in terms of shared meanings (with some individual variation around a consensus).

It cannot be a common delusion, since it must be veridically based on external reality.

It may or may not be capable of description in words, although it may be capable of specification in terms of response.

It has potential behavioural consequences.

It is an indirect determinant of behaviour in that it acts upon attitudes, expectations, states of arousal, which are direct determinants of behaviour. (Pp. 24-25).

In attempts to conceptualise organisational climate within a bank, Argyris (1958) uses synonymously organisational 'climate' and organisational 'culture'. If, however, one equates 'organisational culture' as defined by Schein (1985) as being:
"A pattern of basic assumptions - invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration - that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (p. 9).

and, if we are to take 'culture' to mean the set of beliefs, values and norms that constitute blueprints for behaviour, then "the concept of organisational 'culture' as the basis for a definition of organisational 'climate' seems too broad." (Evan, 1968, p. 108).

Likert used the term organisational 'atmosphere' when suggesting that the most important prerequisite for the establishment of his Ideal System 4 - participative style leadership based on overlapping work groups was the creation of a 'supportive atmosphere'. There should be "favourable co-operative attitudes throughout the organisation with mutual trust and confidence". (Likert, 1961, p. 225).

A narrower definition applied to the organisational climate, which is also compatible with that of Tagiuri discussed previously, and proposed by Litwin and Stringer (1968) was developed out of the pioneering work of Lewin (1938) and later Feather (1959); McGregor (1960); McClelland (1961 and 1962) and Atkinson (1964) and later supported by James and Jones (1974); Litwin, Humphrey and Wilson (1978); Michela et al (1988); Burke and Litwin (1992) and Ostroff & Rothausen (1997))

"The term organisational climate refers to a set of measurable properties of the work environment, perceived directly or indirectly by the people who live and
work in this environment and assumed to influence their motivation and behaviour.” (Litwin and Stringer, 1968, p.1).

Schneider & Snyder (1975) suggested an enduring characteristic of organisation that is reflected in the attitudes and descriptions employees make of the policies, practices and conditions that exist in the environment.

Two other generally accepted definitions of organisational climate proposed are:

"Climate perceptions are psychologically meaningful molar descriptions that people can agree characterise a system's practices and procedures. By its practices and procedures a system may create many climates. People perceive climates because the molar perceptions function as frames of reference for the attainment of some congruity between behaviour and the system's practices and procedures. However, if the climate is one which rewards and supports the display of individual differences, people in the same system will not behave similarly. Further because satisfaction is a personal evaluation of a system's practices and procedures, people in the system will tend to agree less on their satisfaction than on their description of the system's climate". (Schneider 1975, p. 474-475)

More recently, and perhaps more comprehensively, and the one that has informed this investigation, Moran & Volkwein (1992) define climate as:
"A relatively enduring characteristic of an organisation which distinguishes it from other organisations and (a) embodies members' collective perceptions about their organisation with respect to such dimensions as autonomy, trust, cohesiveness, support, recognition, innovation and fairness; (b) produced by member interaction; (c) serves as a basis for interpreting the situation; (d) reflects the prevalent norms and attitudes of the organisation's culture; and (e) acts as a source of influence for shaping behaviour (p. 20).

Organisational climate is conceptualised as a summary perception of what the organisation is (Schneider and Snyder, 1975; Schneider & Reichers, 1983), a summated average, meaning that people attach to particular features of their organisational environment (James, 1982). Climate is a useful perspective as it allows different environments to be compared with each other using the same dimensions (Moos, 1976b). Further, climate is a useful approach because climate has been treated analogously to personality (Halpin & Croft, 1963) in the sense that people treat organisations as if they possess personality-type characteristics. Climate therefore embodies properties of the individual perceiver, the organisation and shared meanings arising from the interaction of organisation members. The concept is particularly important because it has been proposed that climate can be used to predict organisational performance (Payne & Pugh, 1976). Here environmental characteristics are organisational climate dimensions.

Common to all theories concerned with behaviour of people in organisations is the awareness of some degree of incompatibility between people and organisations
(Argyris, 1957; McGregor, 1960; Likert, 1961; Litwin and Stringer, 1966; Holland, 1985; Schneider, 1987 a), b); Ostroff, 1997; Emery, 1996). The significance of this incompatibility being that as management aims to constrain certain behaviours and encourage others, the disparity between the nature of individuals and the nature of the organisation can increase. Such individual - organisational incompatibility can sometimes appear an irreconcilable dilemma. It seems that being human and being organised can be problematical for both the human and the organisation. Underlying this common awareness are two generalisations. First, people differ, often widely, on many dimensions (e.g. ability, interests, motives, and attitudes) and this human variation has an impact on the organisation. Second, one of the essential functions of an organisation is to manage this human variability to the extent that collaborative effort toward the attainment of organisational goals is possible. An essential part of this research has been the review of relevant literature concerning existing theory and research, with particular regard to the research problem, concerning organisational climate factors and business performance, the aim being to help place this particular piece of research in context.
SECTION 3

ORGANISATIONAL CLIMATE FACTORS IN BUSINESS

3.1 Introduction

The areas of existing literature examined consisted of empirical monographs, formal articles, published research and other sources relevant to the topic. The search has had major implications for the actual concepts used and subsequent development of a theoretical framework of relationships between variables being investigated. It has also been instrumental in the selection of the dependent and independent variables and an essential aspect of the research design.

Little research was found that focuses explicitly on 'The Problem'. However there is a wealth of tangential and contributory literature concerning the so-called cultural phenomenon, organisational climate as well as organisational culture with a good deal of anecdotal evidence concerning the latter. Although the majority of the work in both theory building and the extensive testing by empirical research was carried out in the 1960s and 1970s using the concept organisational 'climate', since then the concept of corporate culture, which according to some is either synonymous with or encompasses at least some of the 'dimensions' which were originally attributed to organisational climate, has dominated much management thinking for the past decade. Numerous publications, both popular and academic, have explored the 'cultural' perspective on a wide range of management and organisational issues. Some of these writings have

Hofstede (1980) investigated the impact of national culture on a single multi-national organisation, which identified four dimensions on which national culture is seen to vary i.e. power distance; uncertainty avoidance; individualism/collectivism and masculinity/femininity. The research however does not demonstrate, as has sometimes been suggested, that national culture transcends organisational factors. However, it does indicate that managers in different countries vary in personal attitudes and values that they hold.

The continually increasing significance of the 'culture/climate' concept has been enhanced in particular through the relationship it is often assumed to hold with organisational performance. A well-developed and business-specific 'culture/climate' into which management and staff are thoroughly socialised has been thought, at various times, to underpin stronger organisational commitment, higher morale, more efficient performance and generally higher productivity (Hampden-Turner, 1990; Deal and Kennedy, 1982; Emery et al, 1996; Ostroff & Rothausen, 1997 and Sparrow et al 1996). The shared corporate values among management and workforce in such
companies are identified as important critical features underlying a highly motivated approach to achieving well-defined and clearly understood organisational goals.

Whilst the constructs of culture and climate have developed in parallel, they have been driven by researchers from different disciplines using different methodologies. There has been little cross-fertilisation of methods and ideas and considerable debate among researchers about the relatedness of the two constructs. Some see differences as a matter of emphasis and degree, rather than reflecting any truly different frames of reference (James, James and Ashe, 1990; Joyce and Slocum, 1984) whilst others argue that organisational climate is a separate phenomenon to culture (Ott, 1989). Reichers and Schneider (1990) find some support for the latter contention. There are a number of conceptual differences between the two that may be gleaned from the literature in terms of their frames of organisational reference, units of theory, units of analysis and implied level of consciousness. For climate researchers the frame of organisational reference is psychological schema based on latent personal values i.e. individual or personal constructs which may be aggregated across an organisation. For culture researchers the frame of organisational reference is group understanding (interpretive schema) or ways of perceiving, thinking or feeling in relation to a group's problems i.e. an organisational construct which may be decomposed down to individual or personal implications. The unit of theory of climate research is the individual and shared psychological fields which give way to common sets of standards and expectations for behaviour i.e. the average of how people perceive the way in which
the environment is personally beneficial or not. The unit of theory in culture research is
norms, beliefs and justifying ideologies based on explicit systems sanctioned
behaviours i.e. that are appropriate and beneficial to all members of the system. The
view taken in this thesis concerning the relationships between culture and climate has
been argued by Payne (1990a, 1991) and Sparrow and Gaston (1996). They
distinguish between explicit definitions of culture (distinctive patterns or regularities of
behaviour and the material artifacts produced) and implicit definitions (the beliefs,
values, norms and premises which underpin behaviour) and suggests that
organisational climate picks up the explicit and surface levels of culture. Burke and
Litwin (1992) suggest that climate is much more in the foreground of organisational
members’ perceptions whereas culture is more background and defined by beliefs and
values.

In recent years, levels of analysis issues, and understanding relationships between
levels (e.g. individual, group, and organisational) have become important themes in
organisational research (e.g. Dansereau, Alluto & Yammarino, 1984; Dansereau &
Markham, 1987; Glick, 1985; Glick & Roberts, 1984; James, 1982; Mossholder &
Bedeian, 1983; Roberts, Hulin & Rousseau, 1978). As a result, some researchers have
begun to hypothesise that stronger relationships between variables may be found at
higher levels of analysis. For example, Schneider (1985) suggested that research is
needed to assess relationships at the group or organisational level in many areas that
have traditionally been studied at the individual level, such as motivation and leadership, leadership and organisational performance, and absenteeism and attitudes.

Comparisons of relationships between variables at different levels (e.g. individual and organisational) necessitate collection of data at each of the different levels. Often researchers do not have a global index of the organisational variables of interest. Hence they rely on aggregated (or averaged) data from individuals to represent the organisation-level variables (Roberts et al, 1978). Studies using aggregated data to represent organisational characteristics have often shown stronger correlations at the organisational level compared with the individual. Stronger correlations at the group or organisational level (relative to individual-level relationships) have been found between climate perceptions and context, structure, and demographic variables (Jones and James, 1979); between job attitudes and stress (Schmitt, Colligan & Fitzgerald, 1980); between commitment and employee turnover intentions (Angle & Perry, 1981); and between satisfaction and performance (Ostroff, 1992).

The nature of the relationship between organisational and individual correlations when the organisational characteristics are represented by aggregated individual data has been investigated by Ostroff (1993). The main conclusions in the form of summary statements were:

1. Barring the spurious effects of measurement error, the correlation within will equal the individual correlation, and the individual and organisational...
correlations will be equal. If the variance-within ratio is also small, people are similar to each other within organisations but vary across organisations. If the variance within is also large, people are more representative of the entire population across organisations.

2. Measurement error, as a specific type of individual-level error variance, attenuates the individual correlation. To the extent that measurement error exists in the measures of the variables of interest, the magnitude of the ratio of the organisational correlation to the individual correlation will be artificially higher.

3. When the variance-within ratios are very small, the individual and organisational correlations will be very similar. In some cases it has been argued that it is appropriate to aggregate only if the variance within is small (relative to total variation). If a strict definition of this variance-within argument is taken, then the individual and organisational correlations will always be similar. A homologous relationship exists.

4. Small variance-within ratios imply that individuals do not vary within an organisation. However in conjunction with a strong organisational correlation, the implication is that individuals do indeed vary in the attributes of interest but that they vary only by organisation, not within organisations. A process or effect is operating that results in similar people within an organisation, but large differences in people across organisations.
5. Barring the effects of measurement error, when the ratio of the organisational correlation relative to the individual correlation is not one, some other factor or factors are operating. An organisation effect may be operating to change the correlation within or influence the variance-within ratio on one variable. Here, researchers should attempt to investigate how the organisation effect is operating and attempt to determine if a third variable is influencing the relationships. Alternatively an individual-differences effect could be operating which results in larger variance-within ratios.

6. If the variance within organisations is treated as random error, the organisational correlation will be stronger than the individual correlation. This random-variance assumption implies that systematic individual differences do not exist and that the individual correlation is meaningless. A better approach is to first examine if the correlation within is zero. If the random-error assumption is true, then the correlation within will be zero, and a higher organisational correlation relative to the individual correlation is due to random-error variance in the individual correlation. Here, the assumption of random error within organisations is valid. However, if the correlation within is not zero, systematic differences among individuals within organisations do exist. The researcher can then examine whether individual variation is affected by some other processes that influence the correlation.

7. There are still problems in testing the significance of cross-level and multi-level correlations and relationships. First, there is no known significance test
for testing differences between an individual correlation and an organisational correlation that is based on aggregated data. One problem is that the correlations are not from independent samples. Although significance tests for comparing correlations from the same sample have been developed (Steiger, 1980), these tests assume one level of analysis and an equal sample size. This is not the case when trying to compare individual and organisational correlations. Future work is needed to develop an appropriate significance test for comparing across levels correlations that rely on aggregated data. (pp. 581-582).

In the continuing debate concerning the conceptual status of organisational climate Payne (1990), in attempting to apply sound psychometric principles to climate research, concluded "the climate surrounding the concept of climate needed some more intellectual sunshine before the situation could improve."

In a rejoinder to Payne's (1990) argument, Jackofsky and Slocum (1990) replied that:

"Researchers have clearly established that collective climates are a theoretically valid construct (James, Joyce and Slocum, 1998; Jackofsky and Slocum, 1988; Joyce and Slocum, 1984). To assert that it is not grounded in theory is inappropriate. Payne questions its usefulness because prior researchers have not operationalised the construct in psychometrically valid ways. According to James et al. (1988, p.129) 'If individuals in an organisation share perceptions of
their psychological climate, then it is possible to aggregate psychological climate scores because perceptual agreement implies a shared assignment of meaning." (p.81).

While one would advise caution when considering climate survey results, Sparrow & Gaston (1996), in considering the dangers of subjecting climate research to too much mathematical scrutiny, have argued that to consider dimensions of climate from a purely psychometric viewpoint can reduce its potential holistic value to debates about what by definition will inevitably be mathematically questionable assumptions and techniques, most of which have a logic of their own far removed from the phenomenon they are trying to represent. Because organisational climate impinges on both psychosociological as well as organisational management investigations the approach to the literature review is firstly to present 'individual' and 'organisational' theories summarised from the conference proceedings papers edited by Tagiuri & Litwin (1968) which were presented at the 'Research Conference on Organisational Climate' at Harvard University, 1967, which have been argued to 'underpin', in varying degrees, the theoretical framework of much of climate research. The purpose of the next stage is to examine the literature and to consider some of the major types of theories which attempt to explain individual and organisational behaviour, in order (1) to examine the role which environmental variables, particularly those relating to environmental quality or climate, play in these theories, and (2) to consider the value and likelihood of integrating climate concepts into these theories.
3.2 INDIVIDUAL AND ORGANISATIONAL BEHAVIOUR THEORIES

Theories of Individual Behaviour

The theories being considered here focus on different facets of organisational behaviour, their internal structure and sub-divisions of the organisation. The most direct influence of organisational climate appears to be on the individual and small groups and in turn their influence on the organisation as a whole. The kind of questions posed concerning the major theories focus on:

1. How are individuals and small groups accommodated by the theories?
2. Where the theories do accommodate individuals and small groups, what is the role of organisational climate within such a framework?

Psychoanalytic theories

Theories with a psychoanalytic base which consider environmental variables, can be attributed to Freud as well as non-Freudians such as Adler, Horney, Fromm, Rogers and others. The useful aspect of such theories with regard to organisational climate is that due to their empirical basis being focused on children and personality development there was a need for a deep understanding of environmental factors. However while it was suggested that,

"the significance of the environment is seen as a product of the ...changing... needs of the child...and the changing nature of the environment over time"
(Munroe, 1955, pp184-211),
the variety of environmental factors taken into account is restricted in the theory and
touched in very general terms. Bellak (1956) through psychoanalytically derived theory
argued that the ego and its defence mechanisms influence psychological reactions to
the environment,

"...psychoanalysis refers to the ego as that aspect of mental functioning
concerned with ordering of reality into figure (body) and ground (external
environment)" (p27).

Within psychoanalysis, the displacement of feelings and attitudes applicable toward
other situations or persons e.g. co-workers within an organisation may be directed onto
the supervisor. Such passing on or displacing of an emotion or affective attitude, from
one person to another person or object (in the form of some attribute of the
organisation) most generally defines in psychoanalytic terms 'transference'.

Transference, where the individual perhaps could be seen to transfer feelings onto
significant others which may have been triggered by environmental influences, has
been investigated by Munroe, (1955). In attempting to understand organisational
climate through psychoanalytic theory, Burke (1986) suggests a de-coupling between
the 'emotional/non-rational world' of the individual and the 'rational/technical' world of
the organisation. This de-coupling means that how it feels to work in an organisation
only partially connects with how they are studied. Concerning the complexities of
human life within organisations Kets de Vries (1995) argues that such complexities
"raise important questions about human motivation, individual and organisational action, the nature of decision making, and the problem of change." (p.1).

'Discourse analysis' which traces its roots to various domains such as speech act therapy, ethomethodology, conversation analysis and semiology owes a particular debt to post-structuralism which holds as its central tenet that meaning is not static or fixed, but is fluid and provisional (Potter & Wetherall, 1987). This analytic approach is beginning to find application e.g. in post survey interviews. Spence (1982) makes the distinction in psychoanalysis between historical and narrative truth. Reissman (1993) states, 'in psychoanalysis, locating narratives and discourses which reflect personal experiences and perceptions is not difficult' (p.70). Such discourse analysis could be used to help validation of, for example, survey results with selective follow-up interviews.

**Stimulus - Response S-R Theories**

Pavlov (1927) pioneered theories that have attempted to accommodate stimulus and environment. The term conditioned reflex developed from his work with animals and their response to an otherwise neutral stimulus as a result of prior training was taken up by Hull (1943) who using the evidence available in developing theory which utilised environmental concepts. Such learning theories applied to group phenomena have caused Schein to argue that,
"all rituals, patterns of thinking or feeling, beliefs, and tacit assumptions about oneself and the environment that were learned originally as ways of avoiding painful situations are going to be very stable, even if the causes of the original pain are, in fact, no longer present. (Schein, 1985 p178)

It has also been argued (Jaques, 1955; Menzies, 1960 and DeBoard, 1978) that just as learned behaviour can be labelled as "defence mechanisms" in the individual personality, so can parts of a group culture/climate be thought of as being "Social defence mechanisms". However given the nature of S-R theory, it is unlikely that climate concepts could be integrated into existing types of S-R theory. However when applied to people S-R theory indicates that psychoanalytic theory is in fact mistaken about certain behavioural disorders and that simpler behaviouristic accounts of neurotic behaviour are more likely to be correct. Theory suggests, and many experiments demonstrate, that introverted people form conditional responses much more readily than extroverts do. People, who are sociable, impulsive, happy-go-lucky, and generally outgoing in their behaviour, find it rather more difficult to form conditional responses (Eysenck & Eysenck, 1994).

**Expectancy - Value Theory**

In order to create a psychology of purposive behaviour, Edward Tolman and others investigated the broader adjustments and accomplishments of the whole organism in
relation to its environment. The two essential characteristics of Tolman's purposive psychology were:

"(1) behaviour is purposive - the organism is always moving toward goals or away from disturbing objects in its environment, (2) the organism possess knowledge of or a "cognitive map" of its environment. Environmental objects and situations are perceived and responded to in their character of providing bridges or routes to goals." (Tolman, 1926, p. 358)

The McClelland-Atkinson Model of Motivation (Atkinson 1964) utilises the variables 'expectancy' and 'incentive value' to describe the situational determinants of motivation and motivated behaviour Litwin (1968) viewed Atkinson's theory of achievement motivation as a logical development of Tolman's purposive approach to psychology in which such concepts as expectancy and incentive value were integral components of the environment. While Tolman was interested in a broader purposive psychology, the variables such as 'expectancy ' and 'incentive value' are discrete and associated with very specific behaviour and cues, whereas in the real world there would be perhaps numerous such variables. It can also be argued that for Tolman and Atkinson the subjective rather than objective probability of reward following a particular action is what their theories accommodate. The concept of organisational climate as used here implies that its members can make a clear summary of specific perceptions of the environment. Expectancy-value theories do attempt to take account of the perceived environment and the inevitably subjective properties of environmental influence.
Systematic Theories

A good deal of agreement exists in the literature that

"organisational climate needs to be treated as a systems variable"

(Burke and Litwin, 1992, p528)

William Evan in investigating a system model of organisational climate argued such a model was necessary because,

"Complex systematic relations give rise to multi dimensional perceptions of the essential attributes of an organisation" (Evan, 1968, p107).

This view of organisational climate as a systems variable appears compatible with Schneider (1985) and Burke and Litwin (1990) that 'climate' is much more in the foreground of organisational perceptions, whereas 'culture' is more background and defined by beliefs and values.

Two attempts to create a systematic conception of environmental determinants of behaviour originated from Kurt Lewin's (1935) theory of personality and Egon Brunswick's (1939) probabilistic functionalism. Lewin (1939) initiated the first explicit studies of psychological climate. Later describing the link between generalised environmental stimuli and human behaviour Lewin states;

"To characterise properly the psychological field one has to take into account such specific items as particular goals, stimuli, needs, social relations, as well as more general characteristics of the field as the atmosphere (for instance, the
friendly, tense, or hostile atmosphere) or the amount of freedom. These characteristics of the field as a whole are as important in psychology as, for instance, the field of gravity for the explanation of events in classical physics. Psychological atmospheres are empirical realities and are scientifically describable facts." (Lewin, 1951, p241).

An essential relationship in Lewin's motivational theory was that between the person (P) and environment (E) Lewin was convinced that climates were "scientifically describable facts" and "empirical realities". Such empirical realities perceived in organisational climates were strongly supported by Sherif (1958).

"We know that the general setting in which a stimulus is found influences its properties, and unless we take a critical and analytic attitude towards the situation, we need not be aware that its properties are largely determined by its surroundings." (p228)

The concept that is most basic to Lewin's theory is that of "life space" it refers to the aggregate of factual inputs which determines the momentary behaviour of an individual, including the person and his environment which have to be considered as one. The basic concept for describing the features of the life space is "force".

While it can be seen that Lewin clearly identifies environmental concepts of 'life space', 'valence' and 'psychological distance' as means of describing the psychological worlds that people experience, the theory has been criticised for the subjective nature of its
operational definitions of such concepts. However through its wide range of concepts it
does provide the vehicle which facilitated characterising the behavioural influences of
the psychological environment. The subjective nature however determines how the field
will be defined in the first place and what will be selected and responded to.

Brunswik (1939) tackled some of the most contentious problems in psychology that
focused on the relationship between the external (physical) and the internal (subjective)
environment. Brunswik was interested in the relationship between the various classes
of variables in terms of their status as input (stimulus) or output (response) also their
relationship to the organism. He suggested for example that the relationship between
distal stimuli and proximal stimuli are thought of as ecological validity and that the
organism uses whatever proximal clues are available to it in order to progressively re-
focus towards the distal stimuli. Such progressive re-focusing through the utilisation of
clues requires flexibility.

The emphasis in Brunswik's psychology is on behavioural accomplishment - so called
"distal focusing". The elaboration of Brunswik's psychology, known as probalistic
functionalism is a theory of perception and by extension a general theory of behaviour.
The theory stresses that perception is a process of discovering which aspects of the
stimulus provide the most useful or functional cues i.e. those that produce the greatest
probability of successfully reacting to the environment.
Since the analysis of an organisation's behavioural performance based on the control and isolation of variables cannot be generalised from experimental confines, the methodological implications for behavioural research of Brunswik's work are far reaching. The conceptual work of both Lewin and Brunswik in theory construction have been influenced in subsequent theoretical developments to equate the quality of the organisational environment to organisational and individual behaviour. Further as has been suggested by Williams et al (1989) and Furnham and Gunter (1993) the acceptance of concepts of environmental climate undoubtedly depend on the development and validation of techniques for assessing these variables and the utility of the concepts for assessment techniques for theory building. Such a systematic theory is exemplified in the causal model of organisational performance and change as developed by Burke and Litwin (1992), which accommodates both organisational climate and culture as independent variables. The interesting development being that Burke and Litwin go beyond description and suggest causal linkages that hypothesise how performance is affected and how effective change occurs. The suggested processes taking place is compatible with the description of simultaneous variable changes as described by Gleick (1987), which is compatible with Litwin and Stringer (1968) who argued for a more molar model based on the measurement of more situational variables, which would be less vulnerable to the distortions in the meaning of responses due for example to the subjective nature of expectancies and incentives and their distortion over short periods of time.
The systematic conception of the relationship between behaviour and the environment resulting from the work of both Lewin and Brunswick are arguably the most prominent attempts to construct theories of individual behaviour associated with the climate of the work environment.

Having considered some of the major theories which attempt to explain individual behaviour, consideration will now be given to the major types of theories which attempt to explain organisational behaviour particularly with respect to organisational environment. The classification of theories of organisations used here is consistent with other attempts e.g. Pugh (1966). The four categories of theories are labelled as classical, structural, decision system and social system.
Theories of Organisational Behaviour

Classical Management Theories

Theoreticians e.g. Pollard (1978) give wide acceptance that prior to the early 1960s the organisation was a neat well-ordered subject

"arranged around Fayol's Scalar Chain and Heirarchy, and Urwick's 'drawing office job'. Its fundamental base was a logical division of the work to be done and the responsibilities to be carried between individuals as depicted by neat rectangles linked on an organisation chart." (p3.).

Because of such concern with sub-division of work and with the differentiation of responsibility and authority the classical theories of departmentalisation of Fayol (1930) and Gulick and Urwick (1937) and the organisational concepts of Taylor (1947) tend to neglect the significance of the 'people' environment or 'climate' since they showed little recognition of factors which influence behavioural differences and variability in people. March and Simon (1958), whose theory postulates the idea that propositions about organisations are statements about human behaviour and that this involves showing which characteristics are relevant to the theory, suggest:

"... there is a tendency to view the employee as an inert instrument performing the tasks assigned to him... the grand theories of organisation structure have largely ignored factors associated with individual behaviour and particularly its motivational bases" (p29).
Since classical management theories do not attempt explanations in human behaviour that could be influenced by organisational climate, it is unlikely that such theories could accommodate the concept of organisational climate. Haspeslagh and Jemison (1991) working within a 'classical' framework place little importance on the role of organisational climate (or culture) on the success of 'acquisitions', except to suggest that people should be treated fairly, not a great deal of risk-taking in that comment.

**Structural Organisation Theories**

The major theories concerning structural and technical views of the organisation came from the work of Burns and Stalker (1961) which involved the relationship between organisation and technology, where emphasis was given to the relationship between different environmental conditions as well as varying organisation structures. They suggest that it was the particular environment within which it operated that should determine the most suitable organisation structure. Theoretical contributions concerning reconciliation of tasks, human activities and organisation within one such general framework, 'socio-technical' system was proposed by Miller and Rice (1967), with the suggestion that it enabled a complex 'systems' view of organisations without getting lost in the labyrinth of a pure 'systems' approach. The task of trying to synthesise the many organisation and structure theories with their varying approaches to organisational understanding was undertaken by Lawrence and Lorsch (1967), building on models proposed by Likert (1961) and Woodward (1958), developed into a Contingency Theory related to Homans (1950) analysis of human behaviour in groups.
This contingency theory places different approaches into a continuum, which matches different points with different circumstances.

The concept often used of an 'internal system' is a way of describing the organisational environment that can be regarded as the structural analogue of organisational climate. The internal system concept, as used by the comparative analysis of Udy (1959) and Lawrence and Lorsch and others, emphasise 'objective features' of organisation structures, administrative practices and their effects on job characteristics, and thus is quite different from the climate concept with its emphasis on the highly subjective manner in which environmental influences impact on people.

Organisation and structure theorists are continually increasing the scope of their models to accommodate organisational climate variables, particularly those that impact on a 'Control and Command' philosophy, (Joyce & Slocum, 1984; Schneider & Snyder, 1975; Ouchi, 1977 and Galbraith, 1977 and Burke & Litwin, 1992; Edwards, 1994; Payne & Pugh, 1976; Emery et al, 1996). Such models need to accommodate at least two lines of theorizing - organisational functioning and organisational change and to suggest causal linkages that hypothesise how performance is affected and how effective change occurs.
Decision System Theories

Decision-making has attracted a good deal of the theorist's time since decision-making and control are and always will be central to management. At the heart of such theories will be Simon's (1957) work on administrative behaviour, March and Simon's (1958) model of organisations as systems of decision making individuals and Cyert and March's (1963) analysis or organisational choice.

Although such theories have been influenced by the work on executive functions by Barnard (1938) and Boulding and Spivey (1960), and others involved in economic theory, they have a firm footing in the behavioural sciences. Simon's movement towards greater involvement of the individual in the decision making process is well illustrated between what he said in 1957 compared to Barnard in 1938.

"What is important ... is the superlative degree to which logical processes must and can characterise organisation action as contrasted with individual action, and the degree to which decision is specialised in organisation. It is the deliberate adoption of means to ends which is the essence of formal organisation."

(Barnard, 1938, p186).

Simon wrote:

"A theory of administration or of organisation cannot exist without a theory of rational choice. Human behaviour in organisations is best described as "intendedly rational", and it merits that description more than does any other section of human behaviour" (Simon, 1957, p196).
While it can be argued that Simon, March, Cyert and others do not automatically assume that decisions are rational, they do however see one of organisation's primary goals as being rational decision-making.

While other theories do allow for accommodation of organisational climate concepts (Burke & Litwin, 1992) such aspects of climate would need to be highly compatible with decision making behaviour, such as suggested by Boyatzis (1982), Burke and Coruzzi (1987) and Luthans (1988) where the decision making criteria used by management takes into account their ability and willingness to encourage subordinates to initiate (making decisions concerning) innovative approaches to tasks and projects. Usually called the problem of professional autonomy vs bureaucratic control, it is the question of how much freedom the worker has to make his or her own decisions (Hage 1980).

Simon (1957) whose work was reinforced by March and Simon (1958) on the point that decisions of the individuals making up the organisation, in particular whether or not to join, to remain in, to produce, are shown as essential to organisational survival and is compatible with Schneider's (1987) attraction - selection - attrition (ASA) model of organisational functioning that indicates why environments look and feel the way they do. It is clear that if people are differentially attracted to settings, differentially selected by settings, and differentially leave settings, then those who remain in a setting will look very similar indeed. They will have relatively similar interests, values, competencies
and behaviours (Neiner & Owens, 1985; Owens & Schoenfeldt, 1979). If such theories are capable of being compatible with the meanings which individuals and groups assign to events and states of affairs around them, then organisational climate is capable of fitting into such theories. With ever-increasing pressures on the executive decision making 'lead-time', interest in variables such as duration of the decision-making process and discussion, usually tends to be positively related (Hage, 1980). Again people's compatibility with 'risk taking' and the handling of anxieties associated with risk taking, which can impact on the climate dimension of 'empowerment', is consistent with March and Simon's (1958) information search given uncertainty.

**Social System Theories**

A major criterion of the social system theory of organisation, is the high level of emphasis placed on organisational motivation and performance by the immediate informal work group. These theories stem from the work of Mayo (1933) and Lewin (1943). Other significant contributions have been made by Roethlisberger and Dickson (1939) through their classic Hawthorne studies, Whyte's (1948) studies of worker attitudes and behaviour, even when against economic self-interest, Homan's (1950) survey from which it can be argued that whatever facilitates the creation of a group togetherness needs to take into consideration both the internal integration process and the external adaptation system, Likert's (1961) summary of research and model building, and Schein (1965), in considering the Hawthorne studies saw, arising out of them what he termed 'social' assumptions, much later he further argued that,
"Employees are motivated by the need to relate to their peer and membership groups and that such motivation often overrides economic self interest." (Schein, 1985, p100).

While the aforementioned theories have scope for accommodating certain of the organisational climate factors with regard to their influence on individual attitudes and behaviour, there is a dearth of attempts to systematically describe the environment as a subjective whole, that is, to describe the climate at the company level.

Lewin, Lippitt and White (1939) first introduced the terms climate and atmosphere in their study of leadership style and Schein (1965) used the climate concept quite extensively in his analysis of the effects of organisations on individuals although in recent years Schein has talked more of organisational culture. However from later work of Schein (1985) and Hofstede et al (1990) concerning the measurement of organisational cultures it was argued that the independent variable was influenced by factors outside the immediate company environment i.e. national and international culture.

A description of a systematic theory of human motivation which describes the quality of the organisational environment as subjectively perceived by the organisation's members using the concept of organisational climate has been put forward (Litwin and Stringer, 1968; Tagiuri and Litwin, 1968). The concept of organisational climate that
emerged from this series of studies and articles was that of a psychological state strongly affected by organisational conditions (e.g. systems, structure, manager behaviour, etc.). The importance of this early research and theory development regarding organisational climate was that it clearly linked psychological and organisational variables in a cause-effect model that was empirically testable (Burke and Litwin (1992). Further Burke and Litwin (1992) also attempt to delineate between organisational climate and culture as follows:

"We attempt to be very explicit about the distinction between climate and culture. Climate is defined in terms of perceptions that individuals have of how their local work unit is managed and how effectively they and their day to day colleagues' work together on the job. The level of analysis, therefore, is the group, the work unit. Climate is much more in the foreground of organisational members' perceptions, whereas culture is more background and defined by beliefs and values. Climate is of course affected by culture and peoples perceptions define both at different levels." (pp 526-527).

To support theory building and to facilitate greater clarification in empirical work, an attempt was made by Burke and Litwin (1992) as did Schneider (1985) and Burns (1978) to clarify both the differences between climate and culture, as well as creating a model of organisational behaviour which has been developed in the open system framework especially represented by Katz and Kahn (1978), within which both climate and culture can be described in terms of their reaction with other organisational
variables, i.e. attempting to distinguish between the set of variables that influence and are influenced by climate and those influenced by culture. In addition to the above distinction they also looked at how the dynamics within organisations accommodated these two concepts of culture and climate.

"We postulate two distinct sets of organisational dynamics, one primarily associated with the transactional level of human behaviour - the every day interactions and exchanges that more directly create climate conditions. The second set of dynamics is concerned with processes of organisational transformations: that is, rather fundamental changes in behaviour (e.g. value shifts). Such transformational processes are required for genuine change in the culture of organisations." (Burke and Litwin, 1992, p. 527).

A number of other organisational behaviour models tend only to describe or illustrate. Such models as those developed by Pascale and Athos (1981) and sharpened further by Peters and Waterman (1982) and Waterman (1987) emphasise and focus management on such attributes of success as strategy, structure, systems, style, staff, skills and shared values and the interrelationships between such variables. The apparent weakness of for example, the 7S model developed by Peters, Waterman, Athos and Pascale while at McKinsey and Company and the later 7C model of Waterman (1987) is a theoretical link to explain any relationship between external environment and performance variables, no external environment or performance variables are contained in either the 7S or the 7C models.
In line with the original argument which underpins Lewinian theory, there is an ever increasing recognition and use of organisational climate concepts, particularly at the organisational level in social system theories, as researchers become involved in studies of more complex organisations and of total systems (Gestalt) functioning, particularly when the focus is on identifying differences between organisations' performances both within national boundaries and at international levels with the often extraneous variables of different national cultures taking effect (Hofstede et al, 1990).

The theories of organisational behaviour generally allow for the integration and utilisation of climate concepts. A number of the theories discussed have in fact made use of concepts that attempt to describe the effects of environmental quality on individual and group behaviour. Of recent interest is that concerning the influence of 'work values' (Dose, 1997) and although they have implications for many aspects of organisational theory, one particularly appropriate example concerns organisational socialisation. Schein (1968) states that socialisation in such context is,

"the process by which a new member learns and adapts to the value system, the norms, and the required behaviour patterns of an organisation, society or group."

(p.1).

The four types of theories of organisational behaviour differ considerably in the extent to which they currently utilise concepts describing the organisational environment, and
with respect to the possible integration of concepts of environmental quality or climate. These differences among the theories are related to: (a) the emphasis in the theory on understanding individual and group behaviour in organisations, and (b) the attention given to systems analysis, that is, to analysis of organisations in terms of the functioning and inter-relationships of parts or subsystems. The concern with understanding individual and group behaviour leads to examination of the impact of the organisation with its structure, technology, norms, and so forth on the individual or small group and inevitably to various kinds of environmental analysis. System theories appear to be quite eclectic and to draw on many kinds of conceptual backgrounds including engineering, biology, psychology and sociology. This is due, in part, to the complex explanatory task that system theories have taken on. Having reviewed the literature concerning the relevant classical psycho-sociological theories, which appears most compatible, albeit in varying degrees, with the construct of organisational climate and organisation performance, consideration is now given to empirical research and relevant theory.
3.3 **Empirical Research and Relevant Theory**

The concept of organisational climate has received considerable attention from applied psychologists and organisational sociologists over the last three decades. Empirical studies have been conducted and review of the research findings published. (The major reviews are Campbell, Dunnette, Lawler and Weick, 1970; Joyce and Slocum, 1984; Rentsch, 1990; Rousseau, 1988; Schneider and Reichers, 1983; Schneider, 1990).

Most measures of climate take the organisation or department as the unit of analysis (see for example, Patterson et al, 1992, and Jackofsky and Slocum, 1990) but there are concerns about the extent to which agreement on climate perceptions can be demonstrated across the entire organisation, characterised by quite disparate subclimates, department roles and hierarchical levels. If consensus among individual perceivers can be shown, then Jones and James (1979) argue that it is legitimate to aggregate the individual perceptions to the larger organisational unit and to regard the mean perceptions as a property of the unit. This would constitute a measure of organisational climate (Drexler, 1977; & James, 1982). With regard to levels of consensus among organisational members Pace and Stern (1958) suggested that two-thirds of respondents should agree, whilst Guion (1973) argued for a 90 per cent level of agreement. As mentioned earlier, when considering the level of homogeneity in the responses of members of an organisation, Denison (1990) argued
"Nowhere in the climate literature, however, has the homogeneity issue been posed as a 'compared to what' type of problem. The debate has proceeded without much discussion of the appropriate level of homogeneity for various levels of analysis“ (p. 204).

Glick (1985) argues that most perceptual measures of organisational climate are sufficiently reliable to justify aggregation.

Some of the early research conceptualised climate as an independent variable and focused primarily on the relationship between climate and such dependent variables as job satisfaction and performance (Friedlander and Margulies, 1969; Litwin and Stringer, 1968; Pritchard and Karasck, 1973). Another view is that climate is a mediator between organisation strategies and performance. Kopeman, Brief and Guzzo (1990) considered climate an intervening or moderating variable which can be used to explain why organisational processes such as human resource management (HRM) practices can influence productivity (their indicator of effectiveness). They suggest it be through climate. Schneider and Hall (1972) propose climate as a mediating variable, impacting upon performance through its effects on motivation; James, Hartman, Stebbins and Jones (1977) found a significant relationship between climate, motivation and performance, using data gathered from managers in a health company. Lawler et al (1974) also found evidence to support the idea that climate is an intervening variable between organisational processes (such as leadership processes), on the one hand, and performance and job satisfaction, on the other.
The literature reveals that understanding organisational climate requires a high tolerance for complexity and ambiguity. In an attempt to sort the 'wood from the trees', the type of empirical research that will be considered can be restated as that which attempts to increase the understanding of why differences in complex organisational environments are associated with different behaviours in the way of organisational outcomes. Although the centre of interest is the influence of organisational climate factors on behaviour, where appropriate reference will be made concerning culture and extra-organisational influences, such as that in the work of Geert Hofstede and Edgar Schein.

The differences between the 'transformational' change nature of organisational culture and the 'transactional' nature of organisational climate has been clearly encapsulated in a model of organisational performance and change (Burke & Litwin, 1992). They describe the differences between organisational climate and culture such that climate is defined in terms of perceptions that individuals have of how their immediate organisation is managed and how, for example, they and the colleagues work together. Climate is very real and much more in the foreground of organisational members perceptions and can more easily be related to organisational outcomes, whereas culture is more background and defined by the beliefs and values. The underlying values and norms in organisational culture are not entirely available to one's consciousness. The level of analysis of both climate and culture is the organisation.
However, climate has the advantage of facilitating analysis at divisional levels as well. Climate is, of course, affected by culture. According to Sparrow and Gaston (1996) the differences between climate and culture can be seen in the units of theory i.e. the unit of theory in climate research is the *individual and shared psychological fields* which give way to common sets of standards and expectations for behaviour i.e. the average of how people perceive the way in which environment is personally beneficial or not. The unit of theory in culture research is norms, beliefs and justifying ideologies based on explicit *systems-sanctioned behaviours* i.e. that are appropriate and beneficial to all members of the system. There is considerable debate about the unit of analysis in climate research and it has therefore varied from the *individual* through to aggregate measures of *consensus at the work group, division or organisational level*. In contrast the level of analysis in culture research is always on *collective groups*, never the individual.

Numerous publications, both popular and academic, have explored the cultural phenomenon - 'organisational climate' albeit often under the guise of 'organisational culture'. The empirical work tends to be patchy with a good deal either attempting to define it; or explain its origins or sometimes proposing 'quick fix' suggestions on 'how' to manage it. Apart from anecdotal evidence, there is little 'scientific' research reported concerning the influence of organisational climate on organisational performance particularly at the inter-organisational level. As has been mentioned most of the theory building which is capable of accommodating the concept of organisational climate as
well as related empirical research grew out of a strong psycho-sociological approach in
the 1960s and 70s, some of the leading researchers being Schein (1965 and 1980),
Litwin (1968), Evan (1968 and 1978), Likert (1961 and 1967), Cyert (1963), Atkinson
this work owed its original development to the early work of Mayo (1933), Brunswick
(1939) and particularly Kurt Lewin's 'field' theory which uses environment as an
important and integral part of individual and group behaviour. According to Lewin:

"Field theory is probably best characterised as a method: namely, a method of
analysing causal relations and of building scientific constructs." (Lewin, 1952, p.
45).

In considering analysis, beginning with the situation as a whole, Lewin further added:

"What is important in field theory is the way the analysis proceeds. Instead
of picking out one or other isolated elements within a situation, the
importance of which cannot be judged without consideration of the
situation as a whole, field theory finds it advantageous, as a rule, to start
with a characterisation of the situation as a whole".

(Lewin, 1952, p. 63).

This holistic, Gestalt approach, which emphasised certain similarities between the
perceived structure and the objective structure of the surrounding stimuli, was
compatible with organisational climate. (Payne and Pugh, 1976).
The idea of the concept of 'organisational climate' as an 'empirical reality' was addressed by Lewin, Lippitt and White as early as 1939 when they investigated the different organisational atmospheres created by three different leadership styles - authoritarian, democratic, and laissez-faire and the resultant effects on the group members. Lippitt and White later restated the findings of that classic paper i.e. Patterns of Aggressive Behaviour in Experimentally Created Climates, by saying

"The adult-leader role was found to be a very strong determiner of the pattern of social interaction and emotional developer of the group. Four clear-cut types of social atmosphere emerged, in spite of great member differences in social expectation and reaction tendency due to previous adult-leader (parent, teacher) relationships". (Lippitt and White, 1958, p. 510).

In their conclusions concerning this work carried out with Kurt Lewin in the 1939 study, they stated:

"It can be reported that in nearly all cases differences in club behaviour could be attributed to differences in social climate rather than to constant characteristics of the club." (p. 506).

Here social climate manifests itself in behaviour as it occurs in social interactions. Further support for the critical influence of the group environment on individual and intra-group behaviour came from Sherif et al (1958 and 1961) studies of the role of subordinate goals in the reduction of intergroup conflicts, and Blake and Mouton's
five-mode model for the constructive resolution of conflict. Building on the earlier work, particularly that of McLelland (1961) and Atkinson (1958 and 1964) and the McClelland - Atkinson theory of motivation, a study was undertaken by Litwin and Stringer (1968) to test several hypotheses concerning the influence of organisational climate and leadership styles. Of particular interest were the effects of the indirect climates in three simulated companies. They concluded,

"an understanding of climate will aid in the study of the management process, particularly with regard to the effects different styles of management have on people, on organisational performance, and so on organisational health."

(p. 144).

It is claimed by Litwin and Stringer that the company which significantly outperformed the others was perceived as having a style of management where the 'achievement' motive was aroused, a higher level of new products being introduced, lower material costs and a higher profitability both in the form of total profit and the percentage return on sales, was the one where high productivity was valued by the chief executive and where individuals were encouraged to set their own goals and take on the ownership of such goals as well as personal responsibility for the end results. The other two companies had leadership styles where the first company had 'power' as the motive aroused, i.e. with strong emphasis on maintenance of a formal organisation structure with clearly defined and tightly controlled roles. The other company had 'affiliation' motive aroused, which encouraged a loose, informal structure where teamwork and group loyalty was encouraged. It seems reasonable to conclude that such motivation of
achievement, as shown in the first company, which is compatible with McGregor's (1960) 'Theory Y' (participative management), would engender the highest level of performance through such an 'organic' i.e. task orientated style of management (Plant, 1987). It is noticeable, however, that some of the evidence relating to the influence of 'climate' to 'performance' obtained from these studies was anecdotal, additionally the extent to which results from such 'simulations' can be generalised beyond the immediate environment to other populations or settings to give population or ecological validity is questionable.

Likert, like McGregor, rejected traditional assumptions about human behaviour under management. McGregor (1960) through his formulation of 'Theory X' (authoritarian management) and 'Theory Y' (participative management) proposed new methods based on better understanding of peoples' motivation and potential. Likert (1967) argued that participative management was the best kind, and most likely to produce results. This led him to identify different styles of leadership and to correlate them with business performance, resulting in System 1 to 4 as a progressive chart of management styles - exploitative authoritarian, benevolent authoritarian, consultative and participative. Likert and Likert (1976) building the Likert (1961) System 4 (participative) leadership style, proposed System 4 Total Model Organisation (System 4T) which adds certain characteristics to System 4, such as high levels of performance goals, transmitted by leader to subordinates, a high level of skill and knowledge on the part of the leader, and the leader's capacity to provide planning resources, equipment
and help for subordinates i.e. a supportive climate. System 4T is the optimum Likert structure in terms of linkages and means of dealing with conflict in an organisation. Likert argues that the nearer an organisation approaches to System 4T, the more its productivity and profitability will improve and conflict is reduced. Such conflict need not be just between labour and management. Schein (1985) when considering 'inter group' conflicts within the organisation argues that

"..... groups can form on the basis of physical proximity, shared fate, common occupation, common work experience, similar ethnic background, or similar rank level (such as labour or management)". (p. 39).

It is noticeable that although during the 1980s, as identified by Burke and Litwin, (1992), and Furnham and Gunter, (1993), there was a spate of publications on organisational culture, they failed to provide detailed information on how culture works or can be shaped, changed or otherwise managed in practice. Williams, Dobson and Walters (1993) when considering the present stage of organisational culture research and how it could be utilised in organisational change programmes supported these comments when they stated,

"We recognise that many aspects of culture still need to be reliably researched."

(p. xvi)

In a retrospective study which explored how pre-implementation perceptions of organisational climate factors could affect the success or failure of total quality
management (TQM) implementations, Emery, Summers & Surak (1996) found that employees within the 'successful' organisations perceived a more positive initial climate than employees in unsuccessful companies, based on chi-square statistics computed for each of the questionnaire items assessing organisational climate. A TQM specialist-consulting firm judged (independently) the level of implementation success, based on the progress of the organisation's internalisation of TQM principles after 8 months.

As indicated earlier an important aspect that has had to be addressed is how much the climate is perceived to permeate the organisation before it can be expected to influence performance or even be said to exist. Early work by Pace and Stern (1958) undertook an investigation which attempted to measure the psychological characteristics of college environments; they suggested that 66% of the people in an organisation, team, or department needed to agree that the climate is X or Y etc. before the conceptual status of social climate could be said to exist. However, Guion (1973) argued it should be 90%. Regarding these percentages Payne (1990) commented,

"Few researchers have followed either prescription and most have used the mean score." (p. 77).

Ostroff & Rothausen (1993c) in their field study of educational organisations found that, consistent with Schneider's ASA framework, results suggest that tenure moderates the relationship between person and environment. Schneider (1987 a,b) emphasises we must shift our focus from the individual to the organisation as the unit of analysis. There
will be individual variation within any organisation, but overall, the people in one organisation will be more similar to each other than people in another.

Research, which addresses the criteria "what is being measured in organisational climate", was undertaken by Drexler (1977), who showed that the greater percentage of variance in climate scores was attributable to groups rather than to individuals. It has been argued by Payne (1990) that because Drexler mixes levels of analysis by gathering information from small teams regarding their perceptions of organisational climate, the concept of organisational climate commented on was not valid. However Joyce and Slocum (1984) with the question of levels of analysis in mind investigated what they termed 'collective climates', in order to arrive at some basis for agreement for defining aggregate climates in organisations. This was later followed up by Jackofsky and Slocum (1988) with a longitudinal study of climates after which they agreed with the findings of James et al (1988) and their paper 'organisations do not cognize', that

"If individuals in an organisation share perceptions of their psychological climate, then it is possible to aggregate psychological climate scores because perceptual agreement implies a shared assignment of meaning." (James, 1988, p. 129).

Further James (1982) argued that if it can be demonstrated that shared perceptions exist in theoretically meaningful ways, aggregation is justified. The whole argument concerning quantification leads on to how different researchers have approached the problems of operationalisation of organisational climate.
Attempts to measure organisational climate through the perceptual approach have resulted in the generation of a number of structures which are more similar than different thus sometimes the confusion between organisational climate and culture. In a review of several such studies with particular emphasis on the relationship of organisational climate on performance, Campbell et al (1970) found four dimensions common to all the studies: individual autonomy; degree of structure imposed on the position; reward orientation; and consideration, warmth and support, (p. 389 - 394).

Gordon and Cummins, (1979), following their work on the Management Climate Survey which began in 1974 and which included more than 250 studies with medium to large firms in the sectors of manufacturing, utilities, mining, banking, insurance, professional services, publishing and hospitals, have commented on

"the eight dimensions of climate used which had resulted from factor analytical research involving fifty-seven items in current use, forty-eight of the fifty-seven items currently used in the standard survey instruments were used constantly."

(p. 28 - 29).

For the purposes of later work these eight dimensions were expanded to eleven on the basis of inter-item correlations. This 'purified' each dimension as much as possible for research rather than consulting purposes. The dimensions are:

- Clarity of direction
- Organisational reaches
In summarising some methodological implications of this work Gordon (1985) stated

"... conducting studies of all types of organisations under the rubric of 'management climate' our operational definition of the term 'climate' has been quite different from the many others. For instance, Schwartz and Davis use the more common definition of climate as "a measure of whether people's expectations about what it 'should' be like to work in an organisation are being met (1981, p. 33). In other words, climate is usually equated to attitude surveys that measure satisfaction with various aspects of the job environment. In our surveys, we have systematically collected the 'perceptions' of individuals in the top four or five levels of management about how their companies operate. They are not asked whether or not they are 'satisfied' with aspects of their job environment or whether their expectations about the organisation are being met.
Rather their perceptions of how their companies function reflect the value systems or cultures of these companies as seen through management's eyes. We chose to study culture through this upper-level group because we believe that the corporate values held by management are reflected in behaviour throughout an organisation. For instance, if a chief executive officer (CEO) is strongly committed to the concept that profitability is driven primarily by cost control and is further committed to stability and growth of quarterly earnings, it is unlikely that a single unit, department, or division will develop a culture that values programmes that are innovative, long term, and expansionary, but risky. Further, if a company wishes to modify its culture, we believe that the thrust must come from the top. (p. 104).

The results of this study, with its broad industry outlines of utility companies and financial institutions, showed that the most successful companies tend to place a higher value on somewhat different factors than do those that are less successful. It was also found that most successful utilities placed more emphasis on defining individual performance expectations. This contrasts sharply with dynamic market-place companies, in which the most and least successful are differentiated mostly by the extent to which managers perceive the company as setting its sights very high. (Gordon, 1985).
Gordon tends to mix the concepts of culture and climate while clarifying their transformational and transactional factors respectively as suggested by Burke and Litwin (1992).

One of the original exponents of the operationalisation of climate type factors was Rensis Likert (1961) in New Patterns of Management, which was based on extensive questioning of employees in industrial firms, following which he proposed that management could be categorised along a line graduating from System 1, exploitative and authoritarian, to System 4, participative and based on overlapping work groups. The organisational and performance characteristics based on a comparative analysis, used the following operating characteristics: Motivations, Communications, Interaction, Decision Making, Goal Setting, Control and Performance.

Likert then undertook several refinements, which would facilitate the measurement of the nature of the management system employed by a particular organisation. The final instrument contained seven operating characteristics, which Likert (1967) stated, could;

"not only discover what an individual believes are the present characteristics of his organisation but also to find out what he would 'like' the characteristics of his organisation to be" (p.13).

The seven operating characteristics are:
While today Likert's work would not readily be associated with organisational climate or culture, his work on the identification of the organisational characteristics of different style management systems and instruments of measurement has facilitated much of what was learned from System 4 being adapted in specific company situations - as has already been demonstrated different organisations have different climates. (Wilkins and Ouchi, 1983; Schein, 1985; Gordon, 1985; Emery, 1996; Osteroff, 1993) or different sub-climates as identified by Jabri et al, 1986, and Jackofsky and Slocum, 1988. Likert often used the department or division as the level of analysis.

Likert's work on the importance and accuracy of measuring subjective variables has greatly contributed to a more insightful and systematic integration of research findings in co-ordinating non-economic motives with economic needs, (Pollard, 1978).

Litwin and Stringer (1968) developed an instrument that they claimed would,
"collect members' perceptions of subjective responses to the organisational environment. The climate of an organisation could then be defined operationally as the sum of the perceptions of the individuals working in that organisation".

( p.66 ).

The nine scales developed by Litwin and Stringer for use in this instrument, which went through several stages of modifications, between the simulated organisation experiments, and the later field studies are described briefly below:

- Structure
- Responsibility
- Reward
- Risk
- Warmth
- Support
- Standards
- Conflict
- Identity

In considering the studies and the resultant qualitative measurements developed by Litwin and Stringer further evidence for their nine scales or sub-concepts as a vehicle for understanding organisational climate and its use in improving organisational performance was proposed by Litwin, Humphrey and Wilson (1978), and Michela et al (1988).
While there have been a number of 'climate' and 'culture' instruments developed, however, in the case of 'climate' few have been shown to accommodate and assimilate the generally agreed 'climate' dimensions from the myriad of objective and perceived characteristics of the work environment.

Two of the most frequently quoted instruments in the literature are by Newman (1977) PWE (Perceived Work Environment) and Payne and Pheysey (1971) BOCI (Business Organisational Climate Index). Newman's PWE instrument was developed mainly as a result of the findings of Sims and La Follette (1975), who undertook to explore utilising factor analysis the validity and reliability of the Litwin and Stringer (1968) instrument which has already been commented on, which had been constructed to collect an organisation's members' perceptions of and subjective responses to the organisational environment. Sims and La Follette concluded that not only were some of the original scales questioned by the authors themselves (Litwin and Stringer, 1968, pp. 89-92) but after the results from the instrument were submitted to factor analysis and reliability analysis of both the original a priori factors and the factors derived by Sims and La Follette, the majority of items in the questionnaire collapsed into two broad factors: (1) An Affect Tone toward other people in the Organisation and An Affect Tone toward Management. The terms Affect Tones were used by Sims and La Follette to describe previously used dimensions of organisational climate (Campbell et al (1970) and Litwin
and Stringer (1968)). Here Affect Tone towards Management was synonymous with the factors of

a) Individual Autonomy

b) Openness of Upward Communication

and Affect Tone toward Other People in the organisation being related to factors of consideration, warmth and support. The results of this study were reported as indicating considerable doubt that the original climate a priori scales (used by Litwin and Stringer, 1968) were able to measure what they were purported to measure. As a result of the Sims and La Follette finding, Newman (1977) undertook an extensive revision and extension of Campbell's measure of organisational climate which involved writing or adapting from other measures to ensure coverage of all the six facets of: tasks, people, interpersonal relationships, organisational norms or standard operating procedures, physical setting, and opportunities-rewards-incentives. The dimensions used in the instrument (PWE) - Perceived Work Environment - were determined empirically. Others e.g. Jackofsky and Slocum (1988) have tested the validity and reliability.

Payne and Pheysey (1971) developed the original BOCI instrument from earlier work using Sterrn's Organisational Climate Index (Stern, 1970). By the 1990s a number of gaps in the coverage of the original instrument were revealed and new scales for each item developed. The revised BOCI instrument consists of 17 scales, each of eight items, ranked on a four-point format. (Payne et al, 1992).
Sparrow & Gaston (1996) suggest that the popularity of organisational culture can be seen from the seven frequently quoted instruments. Furnham and Gunter (1993) in their extensive review concluded that having examined seven measures of culture as identified by Rousseau (1991)

(1) The Norms Diagnostic Index (Allen & Dyer, 1980),
(2) Kilmann-Saxton Culture-Gap Survey (Kilman & Saxton, 1993)
(3) Organisational Culture Profile (O'Reilly, Chatman & Caldwell, 1988)
(4) Organisational Beliefs Questionnaire (Sashkin, 1984)
(5) Corporate Culture Survey (Glaser, 1983)
(6) Organisational Culture Inventory (Cooke & Lafferty, 1989)
(7) Organisational Values Congruence Scale (Enz, 1986)

"Despite the proliferation in the number of questionnaire measures to describe or evaluate corporate culture, there appears to be little psychometric validation of these measures, particularly of their dimensional structure, and their construct or predictive validity. Until that has been established thoroughly it seems unwise to use such measures in research or management decisions." (p. 249-250).
Hofstede et al (1990) found that organisational culture differences resided mainly at the levels of practices as perceived by members and were significantly correlated with a variety of task, structural, and control system characteristics of the units. However, the usefulness of such measures has been established in the stack of specific types of culture (Rousseau, 1989), or more interestingly, when organisations with very different cultures are involved in mergers (Buono, Bowditch & Lewis, 1985; Haspeslagh & Jemison, 1991). This usefulness has also been supported by Dunn, Norburn & Birley (1985) who used Kotter's 15-category inventory to establish a dichotomy between companies with either so-called marketing effective or marketing ineffective company not surprisingly concluded that such level of effectiveness was significantly influenced by both 'customer closeness' and 'corporate culture'.

Denison (1990) in a highly retrospective study of mainly 'culture' dimensions analysed 34 firms from the SOO (Survey of Organisations) data bank which was gathered from USA companies between 1968 and 1980 and previously reported on by Taylor and Bowers (1972). The three attributes: sources of mission, quality of decision making and organisation of work were claimed to be significantly and positively correlated with financial performance. However since the analyses were based on survey data and published financial results generated between 1968 and 1980 and analysed in 1982 there was no opportunity for any form of validation through method or data triangulation e.g. deepening interviews and discourse analyses and/or case studies. Also with the continuous change in the business ethos during that period 1968 - 80 e.g. in the co-
ordination of organisational behaviour with an ever-increasing reliance on the
management of psycho-social boundaries and perceptions, or 'soft-wired' aspects of
change (Sparrow, 1996), it could be speculated that employees' perceptions, and
therefore level and profile of scoring, could have changed over the twelve years.
Galiers (1997) on the implications of organisational climate in the 'implementation' of
business strategy commented,

"... an approach that attempts to identify implementation issues as part of the
very process of strategy formulation, would seem to hold considerable promise,
particularly if the people aspects and the ethical considerations (Newall 1995)
are emphasised. One such approach, based on soft issues methodology had
been proposed by Checkland, (1981)."

Climate as a transactional variable which has a more direct influence on organisational
performance compared to culture (transformational variable) is compatible with the
model discussed by Galliers (1997) and shown in Appendix IV. This belief, that climate
and culture are two distinct constructs in organisational psychology has received strong
support from Burke & Litwin (1992), Langan-Fox and Tan (1997).

While much business press space is regularly allocated to the anecdotal evidence
concerning the shared corporate values which go to create a favourable organisational
climate in companies such as Levi Strauss, Toyota (UK), Lloyds Bank, Virgin, Jaguar,
Marks & Spencer, little empirical research is reported that attempts to identify those
critical features of organisational climate which are suspected to underly a highly motivated approach to achieving well defined and clearly understood goals. Examples of research that have focused on the need to understand more of the discriminating influences of organisational climate come from Baker & Hart (1989); Pims (Profit Impact of Marketing Strategy) Benchmarking Council Conference (1997) and Clayton and Carroll's Special Feature in Panorama of EU Industry 95/96. Such understanding emphasises the perceptual basis of behaviour and can be used to portray a target of change or goal (Williams, Dobson & Walters, 1993). This character of an organisation's internal work environment and relationships between person-environment congruence and organisational effectiveness (Ostroff, 1993b) has long been recognised as a potent influence on employees' cognitions, affect and behaviours particularly in relation to job satisfaction, organisational commitment, turnover, vocational adjustment and occupational stability (Holland, 1985; O'Reilly, Chatman & Caldwell, 1991; Ostroff & Rothausen, 1997). Further, climate can be considered as a "measure of whether people's expectations about what it should be like to work in an organisation are being met" (Schwartz & Davis, 1981, p. 31). Climate can most accurately be understood as a manifestation of culture or a cultural phenomenon (Schein, 1985a), although culture is typically defined as a deeper, less consciously held set of meanings (Reichers & Schneider, 1990). Payne (1990) in taking stock of culture and climate, suggests that organisational climate picks up the explicit and surface levels of culture. Accordingly, measures of climate would show whether beliefs and expectations are being fulfilled,
and may offer valuable insights to whether and how an organisation's culture will accommodate change.

Established approaches to climate formation are: the objectivist - the organisation's structure, and subjectivist - the organisation's membership. Another explanation for the formation of climate perceptions is rooted in George Herbert Mead's symbolic interactionism. Poole & McPhee (1983) state that the theory of co-orientation is critical to organisational climate understanding and research in testing an interactionist approach. This theory focuses on how people in organisations create social realities that extend beyond and bridge their own perspectives. Such perspectives are compatible with Festinger's (1954) Social Comparison Theory. This socialising of organisation members over time can result in changes in members' values or personalities in the direction of organisational values (Fisher, 1986). To the extent that two people describe their organisation similarly, they are in agreement and according to Fox, Tanton & McLeary (1991) and Fox (1991), this agreement is irrespective of industry sector or organisation structure (holding company, multi-divisional, and unitary companies). This has important implications since in order to obtain a single aggregate measure for each dimension for each company, agreement among individuals within the same context needs to be established and individual climate perceptions aggregated (averaged) to represent a composite organisational climate (James, 1982; James & James, 1989).
This interactionist perspective (Schneider & Reichers, 1983) blends objectivism and subjectivism, and argues that climate perceptions are a result of efforts by individuals to understand the organisation and their roles within it. This view draws on symbolic interactionism (Blumer, 1969) in general and newcomer socialisation in particular (Katz, 1980; Wanous, 1980). Symbolic interactionism holds that meaning is not a "given" but evolves from interactions with people. This approach to the formation of climate can be seen as a specific application of the general area of interactional psychology (Endler & Magnusson, 1976; Schneider, 1983). One problem with interactionism is that little theoretical explanation as to how the person and the environmental elements interact has been provided (Pervin, 1978). The notion of congruence as an explanation of this interaction may be a more useful perspective at higher levels of analysis (i.e. group or organisation) (Ostroff, 1993b).

Several psychological theories that assume a fundamental need to know and control, are compatible with symbolic interactionism such as personal causation (de Charms, 1968). mastery (Kelley, 1971) or self-efficacy (Bandura, 1977). This need is said to impel individuals to understand, to predict, and ultimately aim to control the events that influence and shape their lives. Of these theories perhaps social comparison theory (Festinger, 1954) has the most to contribute by building on Lewinian theory, to an understanding of the genesis of organisational climate.

"Organisational socialisation, as with other forms of socialisation, is the process by which a new member learns and adapts to the value system, the norms, and
The required behaviour patterns of an organisation, society or group". (Schein, 1968, p.1).

The organisational socialisation literature has discussed stage models of socialisation (e.g. Wanous, 1980), tactics organisations use to inculcate new members (e.g. Van Maanen & Schein, 1979), and socialisation processes such as sense making (e.g. Louis, 1980) and newcomer proaction (e.g. Morrison, 1993; Reichers, 1987).

One of the early attempts to create social climates and examine their effect (Lewin, Lippitt & White, 1939) shows how a theme leads to the creation of consistent, although not previously specified behaviours. Such theory of human behaviour is linked to the behaviour of individuals in organisations through what is now being termed: organisational climate. The motivational theory that developed subsequently stems from the work of McClelland (1961) and Atkinson (1964) building on the work of McGregor (1960), who shared many of his ideas with Maslow and Likert.

"To characterise properly the psychological field, one has to take into account such specific items as particular goals, stimuli, needs, social relations, as well as more general characteristics of the field as the 'atmosphere' (for instance, the friendly, tense, or hostile atmosphere) or the amount of freedom. These characteristics of the field as a whole are as important in psychology as for instance, the field of gravity for the explanation of events in classical physics. Psychological atmospheres are empirical realities and are scientifically describable facts." (Lewin, 1951, p.241)
Schein (1985b), when discussing the need for concepts and theories that allow researchers to improve understanding of the origins of organisational climate which can help to explain cultural dynamics, states,

"central to this analysis will be a synthesis of group dynamics theory, leadership theory, and learning theory. Group dynamics and open systems theory, as developed in the Lewinian framework at leadership workshops" (p.148).

Litwin and Stringer (1968), building on past theories of organisational behaviour and particularly the theory of 'lack of congruence' between the work situation and the workers psychological needs, attempted to develop an integrated sociodynamic theory that would, in part, overcome largely objective factors which had been;

"dominant in many previous theories, such factors as management practices, decision making processes, technology, formal organisational structure and social structure (viewed as arising from interaction of technology, organisational structure and individual needs)" (Litwin & Stringer, 1968, p.40).

Such a notion concerning the person-environment fit and the assumption that individuals will be more satisfied and perform better, and that organisations will be more effective when attributes of the person and situation match are congruent, is compatible with the work of Murray, 1938; Morse, 1975; Pervin, 1978; Aronoff &

In several of the studies searching for the influence of organisational climate on organisational performance, e.g. Schneider (1987a & b), Ostroff (1993a), Edwards (1994), Emery et al (1996), the major limiting factor to generalisation of such findings has been that the sources of information were restricted to either Chief Executives or Managers, particularly Human Resource Managers (e.g. Kanter's (1992) work: The Change Masters). Where attempts have been made to improve internal consistency in the findings and create possibilities for generalisation, the dependent variables have tended to be at the level of a project, e.g. the installation of a Total Quality Management (TQM) system (Emery et al, 1996) and the level of success e.g. in post acquisition integration programmes (Haseslagh & Jemison, 1991).

The evidence examined so far leads to the conclusion that performance in organisations is dependent not only on the aims of the organisation but also on the process for achieving such aims. Content and variables in a dynamic strategy need to be supported by the internal process and cohesion of the organisation. Such an internal variable has been defined as the organisational climate and is suspected to demonstrate a measurable relationship with organisational performance. The literature reviewed supports the idea that there is a problem out there and that this problem had taxed the minds of several researchers. To a large extent, however, work has been
limited to examining the characteristics of successful companies and little explanation has been sought for those cases where the same characteristics are present in less successful ones. Such characteristics have therefore not been deemed to form either a sufficient or a necessary condition for successful corporate performance in a changing environment.

It should now be possible to test empirically the extent to which corporate performance is related to certain organisational climate characteristics. While there is a consensus that organisational climate affects employee behaviour and performance (e.g. Holland, 1985; O'Reilly, Chatman & Caldwell, 1991), it has also been argued (e.g. Siehl & Martin, 1990) that the link between climate and performance (particularly in financial terms) has not yet been established empirically. This lack of substantiation is attributed both to problems with defining key constructs (e.g. climate and financial performance) and to the limited number of empirical studies in this area.

Examples that have helped inform this particular investigation, and mentioned earlier, come firstly from Baker & Hart (1989) and Guest (1992) and their methodological criticism of "In Search of Excellence" (Peters & Waterman, 1982) especially its anecdotal evidence and the methodology tending to examine only successful companies.
On the basis of their research, Baker and Hart (1989), investigated how leading companies establish their competitive advantage. This involved two studies, Baker & Hart (1989) in relation to this research commented,

"In order to consolidate knowledge of the scope and marketing factors that distinguish between successful and unsuccessful companies, two separate but related studies were carried out ... Project MACS (Marketing and Competitive Success) and Profit by Design." (P.109), concluded that,

"Clearly discriminators are much more subtle than earlier commentators would have us believe. Perhaps Ames (1970) was closest to the truth when he drew attention to the difference between substance and the trappings ... certainly, our findings lend support to the old adage, 'it's not what you do, it's the way that you do it'." (P.159).

Baker (1991) in referring to the Baker & Hart (1989) research stated:

... the findings confirmed that many of the attributes of successful firms were also present in less successful firms and so could not be used to differentiate between them ... (p.46)

Secondly a case study of General Motors (GM) is given as an example where an unfavourable organisational climate may hinder performance (Lorriman et at, 1995). In 1980 GM foresaw the strong competition from Japanese firms and decided to invest heavily in a modernisation programme - about $90 billion over the 1980s. Of that, no
less than $77 billion was invested in plant and equipment, of which $40 billion was on robotics alone. It is argued, that the organisational climate prevailing during the 1980s, lacked that critical value system without which it is highly doubtful whether any competence development system can be made to work effectively. The result was that, in 1991, GM made a loss of $4.5 billion, at that time the largest loss in American corporate history (beaten only by the same GM the following year when they declared a loss of £23.5 billion). At the operational level GM required about 39 hours to manufacture a car, compared with half that in Toyota. There is now evidence that the organisational climate factors - particularly their learning, communications and knowledge sharing systems, including being one of the world's largest users of Groupware Technology, have received heavy investment (Lorriman et al, 1995).

After reviewing the literature it is clear that the empirical evidence regarding the meaning and utility of the concept of organisational climate is still scarce. It is toward such a challenge that this piece of research is directed. The literature search in respect of existing theory and empirical research has firstly helped place this piece of work in context such as to support the following research hypothesis, in the form of a general proposition. Secondly, is the operational hypothesis which is a hypothesis stated in terms which make it capable of being tested by making appropriate observations and measurements of the variables to which the research hypothesis refers.
3.4 **General Proposition**

Certain discriminating organisational climate factors are associated with 'high' and 'low' performing dynamic market place companies.

In the above proposition "Organisational Climate", the causal variable, may be measured according to Newman (1977), Ashforth (1985) and Jackofsky and Slocum (1988) using Newman's Perceived Work Environment questionnaire. This involved the use of the following as composite proxies: 'Supervisory Style', 'Co-workers', 'Work Motivation', 'Employee Competence', 'Decision Making', 'Performance Rewards'.

The dependent variable performance will be measured by means of following well-established dimensions: Sales Growth, Profit Margin, and Return on Capital Employed. In such a proposition the elements consist of observable events or operations (or their symbolic representation). In order that it can be tested empirically for its truth the following operational hypothesis is being used.

3.5 **Operational Hypothesis**

The more favourable the perceptual agreement by organisation members concerning the independent variable, 'Organisational Climate' for which the following dimensions are being used: supervisory style, co-workers, work motivation, decision-making and performance-rewards, the link between 'Organisational Climate' and higher organisational performance will be stronger.
SECTION 4

METHODOLOGY

4.1 Introduction

The advantages and drawbacks of qualitative and quantitative research approaches to research have been debated extensively (e.g. Reichers and Schneider, 1990; Rousseau, 1990). The methodology proposed in this paper is consistent with the recommendations of Jelinck et al (1983) and Rousseau (1990), that a combination of qualitative and quantitative methods is likely to be more helpful than either mode of enquiry. A survey method, supplemented with case studies and discourse analysis provided the opportunity for triangulation and cross-validation of the findings.

4.2 Development of Theoretical Framework

The object of this study was to explore the likelihood of a link between organisational climate and the performance of the organisation. A number of theories discussed have made use of concepts that attempt to describe the effects of environmental quality on individual and group behaviour. Individual behaviour theories, except for psychoanalytically derived theories, attempt to describe behaviour as a function of a small number of variables that can be defined precisely. This is the case with stimulus-response and expectancy-value theories, which employ algebraic mathematical statements.
The organisational behaviour theories can best be described as systems theories. They contain a large number of variables and focus on the complex inter-relationships of variables to explain behaviour. The relatively eclectic natures of such theories make it easy for them to accept almost any new concept. Regarding climate specifically, it seems reasonable to hypothesise that people do not respond to particular features of the system, but rather to the overall quality of the system. In a systems theory of organisational behaviour, climate should represent the quality of meaning of the system to organisation members.

Theories of organisational behaviour seem to have the capability of dealing with individual and group behaviour inside and outside of formal organisations as well as developing further their capacity to explain organisational performance, adaptability and development and to deal with environmental states such as organisational climate.

Such usage has been enhanced through the attention given by researchers to measuring climate before investigating its relationship to other constructs (Schneider 1983). A further methodological advance in the measurement of climates has been the ability of researchers to differentiate climate from attitudinal measures. Some theory and research has shown that climate is not demonstrably different from job satisfaction (Guion, 1973; Johannason, 1973). When climate perceptions are considered both evaluative and descriptive in nature, then climate and job satisfaction fall under the general rubric of attitudinal research. However, other research (Joyce & Slocum, 1979;
Lafollette & Sims, 1975; Newman, 1977; Schnieder & Snyder, 1975) has argued and shown that when climates are conceptualised descriptively (as beliefs), then climate and job satisfactions are divergent concepts.

Schneider & Snyder (1975) have argued it that when survey respondents are specifically instructed to separate their descriptions of the work environment from their evaluations of the environment, results indicate that they are able to do so.

Derivation of Theoretical Framework for this Study

The earliest work found in the literature that relates to the concept of organisational climate is Lewin (1935) and his *Dynamic Theory of Personality* from which he concluded the often cited equation $B = f(P,E)$. For Lewin behaviour ($B$) was the result of interaction between the person ($P$) and the immediate psychological environment ($E$).

In seeking to describe the essential dynamics that linked human behaviour to generalised environment stimuli from which he developed his *Field Theory in Social Science* Lewin (1951) states:

"To characterise properly the psychological field one has to take into account such specific items as particular goals, stimuli, needs, social relations, as well as more general characteristics of the field as the "atmosphere" (for instance, the friendly, tense, or hostile atmosphere) or the amount of freedom. These characteristics of the field as a whole are as important in psychology as, for
instance, the field of gravity for the explanation of events in classical physics. Psychological atmospheres are empirical realities and are scientifically describable facts." (p.241)

In Lewin's theory of motivation the concept of atmosphere or climate was an essential functional link between the person (P) and the environment (E). He was convinced that climates were scientifically describable facts and empirical realities.

Sherif (1958), explaining the formation of social norms came to the same conclusion.

"We know that the general setting in which a stimulus is found influences its properties, and unless we take a critical and analytical attitude toward the situation, we need not be aware that its properties are largely determined by its surroundings." (p. 228)

The concept of work or organisational climate was introduced into the fields of Industrial Organisational Psychology and Organisational Behaviour in the late 1950s and early 1960s by a group of social behavioural scientists concerned with management and organisational effectiveness (Argyris, 1957; Gellerman, 1959; McGregor, 1960). These people extended Lewin's work on the creation of social climates in boys' groups (for example, Lewin, Lippitt and White, 1939) to the work setting. They reasoned that organisational practices and procedures, especially managerial style, can influence the perceptions employees have of the major
orientations, including goals and values, of the organisation. Thus, following the Gestalt psychology orientation of Lewin, they assumed that organisations communicate a particular atmosphere or climate to their employee through behaviour toward employees.

While the literature reveals a range of instruments purporting to operationalise organisational climate in terms of participant perceptions of different aspects of the work organisation there are relatively few models identified that accommodate organisational members perceptions of and subjective responses to the organisational environment. Four models derived from Lewinian theory, which accommodate both organisational climate and performance form the theoretical framework used in this study.

The first two of the models were contained with Litwin & Stringer's (1968) *Motivation and Organisational Climate Theory* - firstly *A Motivation and Climate Model of Organisational Behaviour* and secondly *A Subjective Model of the Determinants of Motivated Behaviour in Organisations*.

The third model is Katz & Kahn's (1978) *General Systems Model of Organisational Functioning*. 
The fourth model is Burke & Litwin's (1992) *Model of Organisational Performance and Change*.

As is the case with so many theories of behaviour, true definition cannot be made independent of application and theory represents somewhat a statement of objective until it has been discussed in these terms.

The developmental history and role of each of the four models in relation to the theory is summarised as follows:

**Litwin & Stringer's (1968) - *Motivation and Organisational Theory***

Concerning the implications for organisational climate in the context of this theory the authors comment:

"The concept of organisational climate is used as an intervening variable mediating between organisational system factors and innovative tendencies. The perceptions are subjective responses which comprise the organisational climate are seen as stemming from a variety of factors. Some stem from the pattern of leadership and management practices (such as expectations of management praise, rewards and punishments). Others are related in their development more to formal systems of the organisation (such as knowledge of monetary incentive plans or regular promotions). Still others are the result of the behaviour of co-workers (such as the anticipations and feelings about social support and rewards"
resulting from the activities, interactions and sentiments that build up in the group." (p. 41-42)

The two models developed by Litwin & Stringer (1968) out of this theory and illustrated diagrammatically are summarised overleaf:
<table>
<thead>
<tr>
<th>Organization System</th>
<th>Perceived Organizational Environment</th>
<th>Aroused Motivation</th>
<th>Emergent Behaviour</th>
<th>Consequences for Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td></td>
<td>Achievement</td>
<td></td>
<td>Productivity</td>
</tr>
<tr>
<td>Organizational</td>
<td>Dimensions of organizational</td>
<td>Affiliation</td>
<td>Activities</td>
<td>Satisfaction</td>
</tr>
<tr>
<td>structure</td>
<td>climate (or role-set expectations)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social structure</td>
<td></td>
<td>Power</td>
<td>Interactions</td>
<td>Retention (turnover)</td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td>Aggression</td>
<td>Sentiments</td>
<td>Innovation</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td>Fear</td>
<td></td>
<td>Adaptability</td>
</tr>
<tr>
<td>assumptions and</td>
<td>interaction</td>
<td></td>
<td></td>
<td>Reputation (image)</td>
</tr>
<tr>
<td>practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision making</td>
<td>interaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>processes</td>
<td>feedback</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Needs of members</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The aforementioned Figure 4.1 is an attempt to outline an input-output system model. The organisation system features are seen as:

"generating an organisational climate which in turn arouses (or suppresses) particular motivational tendencies. The patterns of motivated behaviour that result are seen as determining a variety of consequences for the organisation including productivity, satisfaction, retention (or turnover), adaptability and reputation. The importance of interaction and feedback cycles is also noted schematically." (Litwin & Stringer, 1968, pp. 41-42).

In this model Kahn's role-set expectations are viewed as equivalent to organisational climate.
Figure 4.2

A SUBJECTIVE MODEL OF THE DETERMINANTS
OF MOTIVATED BEHAVIOUR IN ORGANISATIONS

(Litwin & Stringer, 1968)
The aforementioned Figure 4.2 attempts to clarify the nature of the perceptions involved. It outlines a subjective model of the determinants of behaviour in organisations.

"The two inner spheres represent the person, the intermediate sphere represents the "direct determinants" of the person's motivation, and the outer sphere represents the more indirect influences on motivation (which are the direct determinants of climate). Feedback and interaction patterns are not included in the diagram, nor is directionality of motivation. The emphasis placed on perception in this figure holds an interesting application. The realities of the organisation are understood only as they are perceived by members of the organisation, allowing climate to be viewed as a filter through which objective phenomena must pass."

(Litwin & Stringer, 1968; p. 41-43)
Figure 4.3

A SYSTEMS MODEL OF ORGANISATIONAL FUNCTIONING
(Katz & Kahn, 1978)

Organisational Climate

Leadership & Group Context

Group Functioning

Functional Outputs

Member Satisfaction & Integration

Conditions for Subordinated Groups
This model's (Figure 4.3) development has reflected the work of several researchers (Bowers, 1975; Franklin, 1973, 1975 a,b; Likert, 1961, 1967; Likert & Bowers, 1969, 1973; Taylor & Bowers, 1972). All versions of the model however, reflect on a common form: organisation wide conditions and practices (referred to as organisational climate), along with other more group-specific contextual factors, shape the behaviour of the members of a work group. This influence process occurs predominantly through a leader who links the work group to the rest of the organisation. This set of factors, along with the activities of the group members themselves, determines the functional outputs of the group, the satisfaction of the group members and the conditions under which any subordinate groups in the hierarchy must operate.
Figure 4.4
A CAUSAL MODEL OF ORGANISATIONAL PERFORMANCE AND CHANGE

(Burke & Litwin, 1992)
This model (Figure 4.4) which owes its original development to the work of Litwin and his associates (Litwin & Stringer, 1968; Tagiuri & Litwin, 1968) has been refined through a series of studies directed by Burke and his colleagues (Bernstein & Burke, 1989; Michela, Boni, Schecter, Manderlink, Bernstein, O'Malley, & Burke, 1988).

Conforming to accepted ways of thinking about organisations from general systems theory (Katz & Kahn, 1978),

"The external environment box represents the input, and the individual and organisational performance box the output. The feedback loop goes in both directions: that is, organisational performance affects the system's external environment via its products and services, and the organisation's performance may be directly affected by its external environment. The remaining boxes in the model represent the throughput aspect of general systems theory, and arrows going in both directions are meant to convey the open system principle."

(Burke & Litwin, 1992, p. 527).

To summarise briefly so far, the model shown in Figure 4.4 attempts to portray the primary variables that need to be considered in any attempt to predict and explain the total behaviour output of an organisation, the most important interactions between these variables, and how they affect change. In reality, all boxes would have bidirectional arrows with every other box.
4.3 Operationalisation

The organisational climate literature is characterised by a diversity of research methods.

Broadly, there are two streams: qualitative methods characterised by research that is contextually embedded and requiring interpretation, and quantitative methods characterised by research that is context free, using a priori categories. The pros and cons of these two approaches have been debated in numerous articles (e.g. Reichers and Schneider, 1990; Reutsch, 1990; Rousseau, 1990).

The main benefits of qualitative methods are that they provide a richer, more comprehensive view of the climate. Moreover, because climate is derived from its members and because each climate is unique, proponents of qualitative methods e.g. (Schein, 1990; Winter, 1989; Erlandson et al 1993) have argued that it is imperative that the climate concepts for each particular organisation are explored, rather than just taken away as a given a priori.

Among the criticisms of qualitative approaches is the lack of 'objectivity' and, therefore, lack of reliability of data and validity of conditions. Another criticism is the difficulty in comparing qualitative studies, and the tendency of climates to be portrayed as consistent or uniform (Morgan, 1996). However, Sathe (1983) argues that reading a climate is subjective and interpretive, and that 'the validity of diagnosis must be judged
by the utility of insights it provides, not by its "correctness" as determined by some objective criteria' (p.7).

In contrast, the main benefits of quantitative approaches are in the rigour of research, in their suitability for theoretical testing, in developing universal statements, and in facilitating intra- and inter-unit comparisons. Nevertheless several authors have criticised quantitative approaches for limiting climate categories to the researchers' favourites or being biased towards particular styles of management thinking. It is also argued that quantitative approaches distort the climate being investigated that invalidates the study (Luthans, 1989; Rousseau, 1990). Moreover, quantitative approaches are limited by their flexibility in handling the 'meaning' of behaviours, and have a tendency to tap into diversity and variability rather than the uniformity of climates.

General agreement comes from Evered and Louis (1981), Sanday (1979) and Rousseau (1990) in their reviews of organisational climate/culture methodology that the choice of method largely depends on the researchers training, cognitive style and preference, with allegiances to single modes of inquiry. Jelinek, Smirch and Hirsh (1983) and Stevenson and Cooper (1997) go further to recommend that a range of investigative approaches is required.
One measure that has received good support through a range of replication studies is the PWE (Perceived Work Environment) multi-dimensional instrument developed by Newman (1977) who states:

"The PWE instrument is designed to assess a person's perceptions of the work environment. These perceptions are theoretically non-evaluative. This is extremely important. We are asking organisational members to tell us what they see in their work environment. We are striving for objective descriptions of the work environment. At this point we are not asking the employees to evaluate (good or bad) what they see in their work environments."

( pp.521-522).

It can be used in diagnosing existing work environments and has been so constructed that all job levels and functions within an organisation can complete it and is usable across organisations making inter-organisational comparisons possible. It also addresses the drawback of using a questionnaire where the norms that can be identified are only those included in the instrument, in that the variables included in this instrument are generally agreed to be purely 'climate' rather than for example 'structural' variables such as 'task characteristics' and 'job satisfaction'. Both these dimensions which were included in the original instrument, have been omitted from this study after conversations with John Newman who developed the original instrument (Newman, 1977), Helen Jackofsky, who undertook a major study into organisational climate, using this instrument (Jackofsky & Slocum, 1988) and comments from Roy
Payne following up on Payne (1990b). The instrument provides comprehensive data on how employees are perceiving (experiencing) the work environment, this information can be used as input to activities concerned with work environment design, organisation development, etc. In addition to this diagnostic use the P.W.E. (Perceived Work Environment) measure can be used to monitor the effects of various management of change interventions in the work environment.

Managers and supervisors to manage their organisations (i.e. person/work environment systems) can also use information provided by the PWE measures. During pilot studies it was suggested that an understanding of how employees are perceiving (or misperceiving) their work environment might suggest some effort be put into educational or communication programmes that would lead to more desirable employee perceptions of the work environment and in turn to improved organisational performance through more desirable employee attitudes and behaviour.

The other reason for using Newman's PWE instrument in this study is that it has been shown that it can be used to examine inter-organisational differences in perceived work environment (Jackofsky & Slocum, 1990). Such facilities are essential to this piece of research since it needs to be amenable to such macro-organisational levels of analysis which will include collection of data from a variety of different types of organisations and comparative analysis of their organisational climates and individual climate dimensions.
The emphasis on 'employees perceiving', is an integral part of the assessment of 'climate' dimensions, insomuch that these perceptions are theoretically non-evaluative. Organisation members are being asked to tell us what they see in their organisation i.e. the objective descriptions of their work environment. They are not being asked to evaluate (good or bad) what they see in their work environment.

The relationship between climate and effectiveness has been viewed in different ways. Some have considered climate as an independent variable, focusing primarily on the relationship between climate and individual performance (Friedlander & Margulies, 1969; Litwin & Stringer, 1968; Pritchard & Karasek, 1973). Others have viewed climate as a mediator between organisational strategies and performance. Kopelman, Brief & Guzzo (1990) considered climate an intervening variable or moderating variable which can be used to explain why organisational processes such as human resource management (HRM) practices can influence productivity (their indicator of effectiveness). They suggest that this be through an effecting climate. Schneider & Hall (1972) propose climate is a mediating variable, impacting upon performance through its effect on motivation; and James, Hartman, Stebbins & Jones (1977), found a significant relationship between climate, motivation and performance, using data gathered from managers in a health care company. Lawler et al (1974) also found evidence to support the idea that climate is an intervening variable between organisational processes (such as leadership processes) on the one hand, and performance and job satisfaction on the other.
Given the characteristics of this particular piece of research it can be argued that a quasi-experimental approach is both a necessary and sufficient undertaking to resolving the research problem. Furthermore, and consistent with the recommendations of authors such as Jelineket et all (1983); Rousseane (1990); Stevenson & Cooper, (1997), a combination of qualitative and quantitative methods can be gainfully used together, providing the advantages of both approaches, minimising the biases inherent in single modes of inquiry.

A quasi-experimental cross-sectional organisational climate survey was designed to measure individuals' perceptions, with the frame of reference being the organisation as a whole. The support for such aggregation of organisational climate scores comes from James et al. "If individuals in an organisation share perceptions of their psychological climate, then it is possible to aggregate psychological climate scores because perceptual agreement implies a shared assignment of meaning". (1988, p. 129). According to James (1982) if researchers can demonstrate that "shared perceptions exist in theoretically meaningful ways, then aggregation is justified". Further, while there will be individual variation within any organisation, the people in one organisation will, according to person-environment congruence depicted from ASA (Attraction - Selection - Attrition) theory Schneider (1987), be more similar to each other than to people in another organisation. While climate is based on attributions individuals make about the setting, when individuals agree on these attributes then Jones & James (1979) argue
that it is legitimate to aggregate the individual perceptions to the larger organisational unit and to regard mean perceptions as a property of the unit. This would constitute a measure of organisational climate (James, 1982). Glick (1985) argues that most perceptual measures (such as the PWE instrument) are sufficiently reliable to justify aggregation.

In such a quasi-experimental design, as with this piece of research, employing a combination of both qualitative and quantitative methods of data collection, there is a strong obligation to both support, test, and reject interpretations. One such method of support is 'triangulation'. This has entailed carrying out more than one type of analysis, seeking additional sources of information such as documentary evidence, and through counter-instances, considering alternative explanations and checking with respondents. Following analysis of the data from the survey questionnaires, deepening interviews and discourse analyses, combined with 'case studies' were undertaken.
4.4 Sample and Procedure

Given that most of the published work has captured characteristics only from successful companies, the research method adopted here goes beyond that and aims to differentiate successful from unsuccessful companies. One of the ways of achieving this is by including in the sample industry categories representing 'high-growth' (sunrise) and 'low-growth' (sunset) sectors and aiming to reject the 'null hypothesis'.

Industry growth rates in the UK can be noted from the ICC Industrial Performance Analysis 1997/98; similar frames exist elsewhere. The results of some 14,000 companies have been amalgamated to form 26 major industry sectors covering 166 individual industries. A number of measures were used to calculate performance. Three criteria were used in the selection of 'high' and 'low' growth industries, because they are widely understood and usually available in company records and other sources of company performance.

They are: (i) Average profit margin (1993 - 96)

(ii) Average return on capital employed (1993 - 96).

(iii) Sales growth (1993 - 96)

According to the above source, the composite sales growth for British Industry during the period 1993 - 96 was 9.1%, the average profit margin was 5.9%, and the average return on capital employed was 12.9%. The industry sectors chosen for this study which, reported performances above and below, respectively, on all three measures for
this period, were Electronic Component and Hosiery and Knitwear manufacturers, details of which are as follows:

### Performance Measure

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Electronic Component Manufacturers</th>
<th>Hosiery &amp; Knitwear Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Profit Margin (%)</td>
<td>11.7</td>
<td>2.2</td>
</tr>
<tr>
<td>Average Return on Capital (%)</td>
<td>30.3</td>
<td>7.8</td>
</tr>
<tr>
<td>Composite Sales Growth (%)</td>
<td>23.6</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Within these two categories a number of above and below average firms were included in the sample frame. A company was deemed 'above' or 'below' when its composite sales growth, average profit margin, and return on capital employed, were above or below, respectively of the particular industry average. Because the design of the study includes treating the company as the unit of analysis, only companies based on single sites and where published results could clearly be identified with such discrete sites, were chosen for the sample frame. Also since the focus of the research was on 'manufacturing', only companies, where the major portion of their sales and profits came from manufacturing, rather than, for example, from distribution of other manufacturers' products or a 'design house' for other manufacturers, were included.

Following agreement with the Senior Executive (under whatever organisational title) in charge of Human Resources, most of the companies surveyed were sampled randomly across three broad levels of management, supervisory/technical and manual/clerical
employees. In order to allow standardised comparison and analysis of differences between organisations around 25 questionnaires were issued to each company. Returns were anonymous and not individually attributable since they were returned direct to the researcher in stamped addressed envelopes. The researcher gave assurance of confidentiality and anonymity to the participating companies in the printed instruction sheet sent to every respondent company and employee.

Originally a request sample of around 150 companies was considered, in order to achieve an actual sample of around 60 companies (15 companies for each of the four groups) i.e.

(i) Electronic Component Manufacturers (high growth [sunrise]) / above average performance

(ii) Electronic Component Manufacturers (high growth [sunrise]) / below average performance

(iii) Hosiery & Knitwear Industry (low growth [sunset]) / above average performance


However, this was not possible given available companies who met the criteria of performance measures, manufacturing and single sited profit centres.
Final Sample Composition (See Appendix E)

Electronic Component Manufacturers - (High Growth [Sunrise]) Companies

Total Reported Companies

(as per ICC’s Business Ratio Plus) = 121 companies

Number meeting criteria

(i) Performance

(ii) Single site = 50 companies

(iii) Manufacturing

Contacted by phone (re. participation) = 50 companies

Number unqualified (for other reasons) to participate = 15 companies

Questionnaires (packages) sent to = 35 companies

(Above average companies 15, Below average companies 20)

Following the sending of questionnaires and the answering of any outstanding queries, follow-up telephone calls were undertaken until 10 useable responses in each of the four sectors were agreed.

Response

Above average performance companies = 10

Response rate = 67%

Below average performance companies = 10

Response rate = 50%
**Hosiery and Knitwear Industry - (Low Growth [Sunset]) Companies**

Total Reported Companies

(as per ICC’s Business Ratio Plus) = 112 companies

<table>
<thead>
<tr>
<th>Number meeting criteria</th>
<th>Performance</th>
<th>=</th>
<th>60 companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Single site</td>
<td></td>
<td>=</td>
<td>60 companies</td>
</tr>
<tr>
<td>(ii) Manufacturing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contacted by phone (re. participation) = 60 companies

Number unqualified (for other reasons) to participate = 18 companies

Questionnaires (packages) sent to = 42 companies
(Above average companies 16, Below average companies 26)

**Response**

<table>
<thead>
<tr>
<th>Above average performance companies</th>
<th>= 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response rate</td>
<td>62%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Below average performance companies</th>
<th>= 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response rate</td>
<td>38%</td>
</tr>
</tbody>
</table>

**Comment on response rates**

The lower response rates were from companies with below average performances in both industry sectors. While responses to 'follow-up' calls to companies in the four groups varied, it was evident from their responses that the below average performance companies in both sectors reflected an attitude which was arguably compatible with Kubler-Ross's (1969) denial of reality, insomuch that having agreed to participate in the survey and had, on reflection, changed their minds, it became evident that their main
concerns were the nature of the investigation with its potential link between climate and performance without any reasons given for such concern. Further, during these follow up conversations, there was evidence of all five stages of the Kubler-Ross model that identifies emotional and cognitive responses to such feedback, i.e.

- Shock and denial
- Anger
- Bargaining
- Depression
- Acceptance (Kubler-Ross, 1969)

but particularly 'shock and denial' concerning the 'fact' that their company was 'below' average in their sector's performance. Such feedback seemed to be at variance to his or her beliefs; and secondly 'Anger' that such an investigation should be undertaken, which was reflected in such comments as...I'm a little bit teed off about it...and....In fact, I'm kind of angry about it.... Waterman (1987) also reported similar situations, where management become so wedded to concepts, ideas and practices that they find it painful to accept current reality even in the face of overwhelming counter-evidence, particularly where such feedback is perceived as touching on company performance and its relationship to management style and how people relate to the company and each other.
**Pilot Study**

In an attempt to test the main study's feasibility and to improve validity and reliability of this quasi-experimental design, preparatory work was undertaken with three medium sized manufacturing companies in the UK, in the chemical industry (industrial yarn), furniture, and toys and games sectors, all with differing levels of performance and with marked changes taking place within the companies.

The broad initial requirements from the pilot studies were to gain experience in -

(i) Gaining access to potential participants,

(ii) Convincing firstly management, and then other levels of employees, of the confidentiality of any findings and/or conversations,

(iii) Identifying companies where the structure was such as to ensure that the site climate could be directly related to site performance,

(iv) Piloting the questionnaire,

(v) Undertaking case study practice, conducting in-depth interviews and attending company 'focus group' meetings to facilitate:-

(a) Familiarisation (by researcher and pilot company employees) in the use of research language especially in relation to the organisational climate concept and its operationalisation.

(b) Field experience in interviewing, discourse analysis and case studies utilising training and experience gained on Nottingham Trent University course.
Willing participants in each of the 'pilot' companies were selected randomly to cover both cross-functional and hierarchical positions with the agreed objective of attempting to distil their key shared perceptions of their company's climate when considered against the six dimensions of climate to be used. As a result particularly of employees (at all levels) response to questionnaires, deepening interviews and case study discussions, the understanding of a number of hidden problems was enhanced, an example being the need to engage in elaborating the perhaps unintended consequences of the language that was sometimes used in discourses.

**Dimensions**

**Climate**

The climate survey was designed to measure individuals' perceptions with the frame of reference for the items being the organisation as a whole. The multi-dimensional Perceived Work Environment instrument developed by Newman (1977, pp 523-524), a summary of which is given in Appendix A) was used in this research. Using a five point agrees or disagrees response format, employees were asked to describe the kind of place their company was to work in on six basic dimensions. (Appendix B). The reason for the use of these six dimensions was that Newman's original instrument contained eleven dimensions, seven of which were designated as dimensions of climate. However, following feedback from the three companies involved in the pilot studies and the author's subsequent discussions with Helen Jackofsky and Roy Payne concerning their arguments, Jackofsky and Slocum (1990) and Payne (1990), it was agreed that
one of the seven dimensions i.e. ‘task characteristics’ was a measure of a structural variable rather than a climate measure. Since Task Characteristics has 9 items, this reduced the original number of items from 40 to 31 (see Appendix B).

Performance

The literature reveals a range of criteria used to measure organisational performance. Measures most commonly encountered in the literature are:

- Sales Growth %
- Profit Margin %
- Return on Capital %

Baker & Hart (1989) suggested that the major conditions that measurement criteria should meet be,

"First, it is helpful if the measure can be verified from published sources to minimise the effects of respondents' errors and to simplify research questionnaire. Second, where industries are to be compared, the measures should not vary from one industry to another. Third, the measures should vary as little as possible from company to company and should not be readily manipulated by different accounting conventions. Finally, it is helpful to have measures which can be calculated and compared longitudinally."

(pp 113-114)
Criteria of Company Performance (Dependent Variables) used

Sales Growth (%)
The growth in the revenue derived from the provision of goods or services falling within the company's normal trading activities also called Turnover. As well as being the generator of contribution, competitors, for example, want to know whether they are increasing their market share. However, as well as reflecting a company's competitiveness it can reflect major economic buying trends.

Profit Margin (%) =
\[
\text{Profit before Tax} \times \frac{100}{\text{Turnover}}
\]
This reveals the profits earned per pound of sales and therefore measures the efficiency of the operation. This ratio is an indicator of the business's ability to withstand adverse conditions such as falling prices, rising costs or declining sales.

Return on Capital (%) =
\[
\text{Profit before Tax} \times \frac{100}{\text{Capital Employed}}
\]
This ratio is a key measure of managerial performance by relating pre-tax profit to the long term investment in a company. It is a good idea as to whether sufficient return is being generated on the long term funds in the business. If a low return is being earned for any length of time, liquidity problems are likely to develop.
5.1 Introduction

If consensus among individual perceivers can be shown then Jones & James (1979) argue that it is legitimate to aggregate the individual perceptions to the larger organisational unit and to regard the mean perceptions as a property of the unit. This could constitute a measure of organisational climate (James, 1982). However James et al (1993) make the point that their "Iwg" statistic frequently quoted as a way of testing for within group agreement does not conform to standard measurement theory. Its use has been mainly confined to departments and teams. They point out that few studies have been undertaken using the statistic at the overall level of company analysis (see also Patterson, 1992). Glick (1985) argues that most perceptual measures of organisational climate are sufficiently reliable to justify aggregation.

In order to establish that each company's respondents shared similar views about their company, therefore justifying aggregation of individual scores and using the means to represent climate dimensions, homogeneity of each company's data was examined using the descriptive statistics - means, standard deviations and coefficients of variations (%). The reason for using the coefficient of variation (cv), as a percentage was to express the value of the standard deviation of the distributions, not in absolute terms but in proportionate terms relative to its own mean. The larger the resulting
coefficient of variation, the greater the heterogeneity in the data and the smaller it is the greater the homogeneity.

The results showed the following range of coefficients of variation for each of the six dimensions.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisory Style</td>
<td>8% to 20%</td>
</tr>
<tr>
<td>Co-workers</td>
<td>8% to 15%</td>
</tr>
<tr>
<td>Work Motivation</td>
<td>7% to 19%</td>
</tr>
<tr>
<td>Employee Competence</td>
<td>14% to 22%</td>
</tr>
<tr>
<td>Decision Making</td>
<td>13% to 25%</td>
</tr>
<tr>
<td>Performance Rewards</td>
<td>9% to 15%</td>
</tr>
</tbody>
</table>

There were no population norms found in the literature relating to this particular level of company investigation. However following the suggestions of Pace and Stern (1958) that two thirds of respondents should agree, whilst Guion (1973) argued for a 90 per cent level of agreement, this analysis has been taken as showing a satisfactory level of within group agreement in relation to all climate dimensions.

5.2 **Presentation of Results**

Results are presented in order of analysis.
5.3 Analysis of Relationships

Tables 1 - 7 show correlations for all of the nine variables (6 'climate' and 3 'performance') for the following combination of companies:

Table 1. **All variables on whole** sample.

Table 2. **All variables between** Electronic Component Manufacturers.

Table 3. **All variables between** Hosiery and Knitwear Manufacturers.

Table 4. **All variables within Above** average performance Electronic Component Manufacturers.

Table 5. **All variables within Below** average performance Electronic Component Manufacturers.

Table 6. **All variables within Above** average performance Hosiery and Knitwear Manufacturers.

Table 7. **All variables within Below** average performance Hosiery and Knitwear Manufacturers.
Table 5.1

Means, SDs and correlations matrix for all variables on whole sample.

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supervisory style</td>
<td>3.09</td>
<td>0.44</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Co-workers</td>
<td>3.55</td>
<td>0.46</td>
<td>0.57**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Work motivation</td>
<td>2.91</td>
<td>0.35</td>
<td>0.81**</td>
<td>0.61**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Employee competence</td>
<td>3.18</td>
<td>0.63</td>
<td>0.76**</td>
<td>0.61**</td>
<td>0.74**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Decision making</td>
<td>2.80</td>
<td>0.52</td>
<td>0.77**</td>
<td>0.52**</td>
<td>0.73**</td>
<td>0.77**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Performance rewards</td>
<td>2.41</td>
<td>0.54</td>
<td>0.42**</td>
<td>0.33*</td>
<td>0.39*</td>
<td>0.34*</td>
<td>0.31</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Profit Margin (%)</td>
<td>6.62</td>
<td>12.05</td>
<td>0.48**</td>
<td>0.53**</td>
<td>0.47**</td>
<td>0.54**</td>
<td>0.41**</td>
<td>0.29</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Return on Capital (%)</td>
<td>15.55</td>
<td>59.30</td>
<td>0.41**</td>
<td>0.41**</td>
<td>0.39*</td>
<td>0.47**</td>
<td>0.27</td>
<td>0.20</td>
<td>0.78**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>9. Sales Growth (%)</td>
<td>7.72</td>
<td>21.23</td>
<td>0.46**</td>
<td>0.67**</td>
<td>0.36*</td>
<td>0.39**</td>
<td>0.42**</td>
<td>0.09</td>
<td>0.60**</td>
<td>0.39*</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*p < 0.05; **p < 0.01; N = 40

Climate Variables

With the exception of performance reward which was positively but not significantly related (r = 0.31) to decision making, all other variables showed significant and positive correlations (p < .01), except for performance rewards with both work motivation and employee competence (p < .05). The strongest relationship was found to be supervisory style with work motivation (r = 0.81).
Performance variables

Profit margin correlated highly with return on capital \((r = 0.78)\) and sales growth \((r = 0.60)\) however return on capital was less strongly but significantly correlated with sales growth.

Relationships between 'climate' and 'performance' variables

Significant and strongly positive correlations were shown on almost all climate and performance variables.

Significant correlations were strongest between employee competence and profit margin \((r = 0.54; \ p < 0.01)\) and the weakest between work motivation and sales growth \((r = 0.36; \ p < 0.05)\). The non-significant correlations being decision making with return on capital \((r = 0.27)\) with performance rewards with profit margin \((r = 0.29)\), return on capital employed \((r = 0.20)\), and with sales growth \((r = 0.91)\).

Summary

The Table 1 matrix shows a high level of statistical significance among most of the climate and performance variables. Climate and performance relationships were strongest between co-workers and sales growth \((r = 0.67)\) and weakest between performance rewards and sales growth \((r = 0.09)\).
Table 5.2
Means, SDs and correlations matrix for all variables between Electronic Component Manufacturers

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisory style</td>
<td>3.08</td>
<td>0.43</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co-workers</td>
<td>3.65</td>
<td>0.33</td>
<td>0.64**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work motivation</td>
<td>2.9</td>
<td>0.35</td>
<td>0.82**</td>
<td>0.69**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee competence</td>
<td>3.28</td>
<td>0.66</td>
<td>0.75**</td>
<td>0.54*</td>
<td>0.69**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision making</td>
<td>2.85</td>
<td>0.55</td>
<td>0.74**</td>
<td>0.49*</td>
<td>0.70**</td>
<td>0.78**</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance rewards</td>
<td>2.33</td>
<td>0.54</td>
<td>0.42</td>
<td>0.50*</td>
<td>0.38</td>
<td>0.37</td>
<td>0.26</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Profit Margin (%)</td>
<td>11.31</td>
<td>13.87</td>
<td>0.69**</td>
<td>0.58**</td>
<td>0.63**</td>
<td>0.67**</td>
<td>0.59**</td>
<td>0.49*</td>
<td>1.00</td>
</tr>
<tr>
<td>Return on Capital (%)</td>
<td>33.35</td>
<td>61.58</td>
<td>0.65**</td>
<td>0.27</td>
<td>0.49*</td>
<td>0.63**</td>
<td>0.45*</td>
<td>0.19</td>
<td>0.70**</td>
</tr>
<tr>
<td>Sales Growth (%)</td>
<td>19.39</td>
<td>17.85</td>
<td>0.69**</td>
<td>0.70**</td>
<td>0.62**</td>
<td>0.41</td>
<td>0.36</td>
<td>0.32</td>
<td>0.59**</td>
</tr>
</tbody>
</table>

* p < 0.05; ** p < 0.01; N = 20

Climate Variables
Apart from non-significance between performance rewards with supervisory style (r = 0.42), with work motivation (r = 0.38), with decision making (r = 0.26) and with employee competence (r = 0.37), all other climate variables were significant and positively correlated, of which the strongest being supervisory style with work motivation (r = 0.82) and the weakest being decision making with co-workers (r = 0.49).
Performance variables

Profit margin was significantly correlated with return on capital ($r = 0.70$) and with sales growth ($r = 0.59$). However return on capital did not correlate significantly with sales growth ($r = 0.33$). Performance rewards was only significantly correlated with co-workers ($r = 0.50$).

Relationship between ‘climate' and ‘performance' variables

Significant correlations between co-workers and sales growth were strongest and highly significant at ($r = 0.70; p < 0.01$). However the most consistent and strong relationships were supervisory style with profit margin ($r = 0.69$), with return on capital ($r = 0.65$) and with sales growth ($r = 0.69$). The non-significant but positive correlations were sales growth with employee competence ($r = 0.41$) with decision making ($r = 0.36$) and with performance rewards ($r = 0.32$).

Summary

The Table 2 matrix shows statistical significance among most of the climate and two out of three performance variables. The most consistent and strong relationship between any of the climate variables and the three performance is supervisory style with profit margin, return on capital, and with sales growth. Performance rewards was most noticeable for its non-significant relationships with other climate variables with the exception of co-workers.
Table 5.3
Means, SDs and correlations matrix for all variables between Hosiery & Knitwear Manufacturers

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supervisory style</td>
<td>3.09</td>
<td>0.46</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Co-workers</td>
<td>3.45</td>
<td>0.55</td>
<td>0.58**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Work motivation</td>
<td>2.92</td>
<td>0.36</td>
<td>0.80**</td>
<td>0.62**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Employee competence</td>
<td>3.08</td>
<td>0.59</td>
<td>0.81**</td>
<td>0.69**</td>
<td>0.83**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Decision making</td>
<td>2.75</td>
<td>0.48</td>
<td>0.82**</td>
<td>0.58**</td>
<td>0.67**</td>
<td>0.75**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Performance rewards</td>
<td>2.49</td>
<td>0.54</td>
<td>0.43</td>
<td>0.31</td>
<td>0.39</td>
<td>0.37</td>
<td>0.41</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Profit Margin (%)</td>
<td>1.92</td>
<td>7.72</td>
<td>0.33</td>
<td>0.56*</td>
<td>0.40</td>
<td>0.27</td>
<td>0.05</td>
<td>0.25</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Return on Capital (%)</td>
<td>-2.25</td>
<td>52.52</td>
<td>0.20</td>
<td>0.47*</td>
<td>0.33</td>
<td>0.19</td>
<td>-0.01</td>
<td>0.34</td>
<td>0.91**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>9. Sales Growth (%)</td>
<td>-3.95</td>
<td>17.89</td>
<td>0.43</td>
<td>0.69**</td>
<td>0.29</td>
<td>0.31</td>
<td>0.54*</td>
<td>0.10</td>
<td>0.41</td>
<td>0.22</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* p < 0.05; ** p < 0.01; N = 20

Climate variables
Performance rewards showed positive but non-significant relationships with all other climate variables. All other climate variables showed significant and positive relationships with each other (p < .01). The strongest and weakest significant relationships were supervisory style with decision making (r = 0.82) and co-workers with decision making (r = 0.58).
Performance variables

The only significant relationship was profit margin with return on capital ($r = 0.91$). Sales growth showed a low but positive correlationship with both profit margin ($r = 0.41$) and return on capital ($r = 0.22$).

Relationships between 'climate' and 'performance' variables

The strongest relationship was between co-workers and sales growth ($r = 0.69$) and the weakest decision making with return on capital which were negatively correlated ($r = -0.01$). Correlations between supervisory style, work motivation, employee competence and performance rewards were non-significantly but positively correlated with all the performance variables. The only significant as well as being positive relationship between climate and performance variables were co-workers with profit margin ($r = 0.56$), with return on capital ($r = 0.47$) and with sales growth ($r = 0.69$).

Summary

The Table 3 matrix shows a lack of statistical significance in the relationship between performance rewards and any other climate variable, the largest of these correlations being with supervisory style ($r = 0.43$) and the smallest being with employee competence ($r = 0.37$). Apart from co-workers correlating significantly with all three performance measures and decision making correlating significantly with sales growth, there were no other significant correlations between climate and performance variables.
Table 5.4

Means, SDs and correlations matrix for all variables within Above average performance Electronic Component Manufacturers

| Climate Variable | Mean | SD  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   |
|------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Supervisory style| 3.46 | 0.16| 1.00|     |     |     |     |     |     |     |     |     |
| Co-workers       | 3.86 | 0.24| 0.40| 1.00|     |     |     |     |     |     |     |     |
| Work motivation  | 3.16 | 0.19| 0.16| 0.42| 1.00|     |     |     |     |     |     |     |
| Employee competence| 3.65 | 0.55| 0.48| 0.45| 0.61| 1.00|     |     |     |     |     |     |
| Decision making  | 3.20 | 0.24| -0.39| 0.34| 0.57| 0.51| 1.00|     |     |     |     |     |
| Performance rewards| 2.47 | 0.67| 0.37| 0.59| 0.14| 0.17| -0.01| 1.00|     |     |     |     |
| Profit Margin (%)| 20.23| 13.82| 0.28| 0.64*| 0.28| 0.53| 0.50| 0.45| 1.00|     |     |     |
| Return on Capital (%)| 67.09| 66.60| 0.49| -0.07| 0.03| 0.51| 0.12| -0.02| 0.44| 1.00|     |     |
| Sales Growth (%)  | 31.89| 13.89| 0.49| 0.46| 0.23| 0.13| -0.31| 0.31| 0.30| -0.26| 1.00|     |

* p < 0.05; ** p < 0.01; N = 10

Climate variables

All variables were non-significantly but predominantly positively correlated. Those negatively correlated were decision making with performance rewards (r = -0.01) and with supervisory style (r = -0.39). The largest correlation being work motivation with employee competence (r = 0.61) and the smallest being decision making with performance rewards (r = -0.01).
Performance variables

All variables were non-significantly but positively correlated, with one exception, that of return on capital with sales growth, being negative ($r = -0.26$).

Relationships between 'climate' and 'performance' variables

Overall climate was non-significantly but positively correlated with performance variables, the only significant correlation being co-workers with profit margin ($r = 0.64$). The three negative correlations being return on capital with performance rewards ($r = -0.02$) and co-workers ($r = -0.07$) and decision making with sales growth ($r = -0.31$).

Summary

With the one exception of a significant relationship i.e. co-workers with profit margin ($p < .05$) overall correlation between and among climate and performance variables were low.
### Table 5.5

Means, SDs and correlations matrix for all variables within below average performance Electronic Component Manufacturers

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisory style</td>
<td>2.71</td>
<td>0.23</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co-workers</td>
<td>3.45</td>
<td>0.28</td>
<td>0.11</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work motivation</td>
<td>2.64</td>
<td>0.28</td>
<td>0.67*</td>
<td>0.43</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee competence</td>
<td>2.92</td>
<td>0.58</td>
<td>0.79**</td>
<td>0.14</td>
<td>0.42</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision making</td>
<td>2.5</td>
<td>0.56</td>
<td>0.77**</td>
<td>0.07</td>
<td>0.62</td>
<td>0.78**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Performance rewards</td>
<td>2.2</td>
<td>0.35</td>
<td>0.67*</td>
<td>0.34</td>
<td>0.61</td>
<td>0.54</td>
<td>0.30</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit Margin (%)</td>
<td>2.4</td>
<td>6.20</td>
<td>0.47</td>
<td>-0.30</td>
<td>0.37</td>
<td>0.47</td>
<td>0.26</td>
<td>0.40</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Capital (%)</td>
<td>-0.39</td>
<td>32.23</td>
<td>0.42</td>
<td>-0.29</td>
<td>0.29</td>
<td>0.47</td>
<td>0.22</td>
<td>0.38</td>
<td>0.97**</td>
<td>1.00</td>
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</tr>
<tr>
<td>Sales Growth (%)</td>
<td>6.90</td>
<td>11.53</td>
<td>-0.10</td>
<td>0.48</td>
<td>0.14</td>
<td>-0.12</td>
<td>-0.18</td>
<td>-0.07</td>
<td>0.01</td>
<td>0.17</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* *p < 0.05; **p < 0.01; N = 10

**Climate variables**

Significant and positive correlations were found for supervisory style with work motivation (r = 0.67), employee competence (r = 0.79), decision making (r = 0.77) and performance rewards (r = 0.67) and employee competence and decision making at (r = 0.78). There were no negative correlations and the lowest positive correlation was between supervisory style and co-workers (r = 0.11). However co-workers correlated positively but non-significantly with all other climate variables.
Performance variables

Sales growth showed low but positive correlations with return on capital ($r = 0.17$) and profit margin ($r = 0.01$). The relationship between profit margin and return on capital was positive and significant at ($r = 0.97; p < 0.01$).

Relationships between ‘climate’ and ‘performance’ variables

There were no significant correlations between any climate and performance variables. The highest positive correlations were profit margin with supervisory style ($r = 0.47$) and with employee competence ($r = 0.47$). Employee competence also correlated with return on capital ($r = 0.47$). The negative correlations were sales growth with supervisory style ($r = -0.10$), employee competence ($r = -0.12$), decision making ($r = -0.18$), and performance rewards.

Summary

The strongest relationships were among the performance variables. Those positively and significantly related were supervisory style with worker motivation ($r = 0.67$), employee competence ($r = 0.79$), decision making ($r = 0.77$) and performance rewards ($r = 0.67$). The other positive and significant relationships were between decision making with return on capital ($r = 0.78$) and between profit margin and return on capital ($r = 0.97$).
Table 5.6

Means, SDs and correlations matrix for all variables within Above average performance, Hosiery & Knitwear Manufacturers

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supervisory style</td>
<td>3.29</td>
<td>0.36</td>
<td>1.00</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Co-workers</td>
<td>3.74</td>
<td>0.32</td>
<td>0.50</td>
<td>1.00</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3. Work motivation</td>
<td>3.09</td>
<td>0.25</td>
<td>0.48</td>
<td>0.59</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4. Employee competence</td>
<td>3.29</td>
<td>0.42</td>
<td>0.54</td>
<td>0.75*</td>
<td>0.49</td>
<td>1.00</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Decision making</td>
<td>2.89</td>
<td>0.36</td>
<td>0.71*</td>
<td>0.34</td>
<td>0.48</td>
<td>0.53</td>
<td>1.00</td>
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</tr>
<tr>
<td>6. Performance rewards</td>
<td>2.47</td>
<td>0.47</td>
<td>0.41</td>
<td>0.73*</td>
<td>0.70*</td>
<td>0.57</td>
<td>0.44</td>
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</table>

<table>
<thead>
<tr>
<th>Performance Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Profit Margin (%)</td>
<td>6.87</td>
<td>4.30</td>
<td>0.08</td>
<td>0.00</td>
<td>-0.06</td>
<td>0.01</td>
<td>-0.44</td>
<td>-0.01</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Return on Capital (%)</td>
<td>21.45</td>
<td>18.37</td>
<td>-0.22</td>
<td>0.16</td>
<td>-0.23</td>
<td>-0.02</td>
<td>-0.35</td>
<td>0.14</td>
<td>0.61</td>
<td>1.00</td>
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</tr>
<tr>
<td>9. Sales Growth (%)</td>
<td>7.10</td>
<td>3.66</td>
<td>0.48</td>
<td>0.28</td>
<td>0.29</td>
<td>0.25</td>
<td>0.36</td>
<td>-0.22</td>
<td>-0.06</td>
<td>-0.28</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* p < 0.05; ** p < 0.01; N = 10

**Climate variables**

While all variables were positively correlated they were predominantly non-significant correlations, the exceptions being co-workers with employee competence (r = 0.75; p < 0.05), with performance rewards (r = 0.73; p < 0.05); decision making with supervisory style (r = 0.71; p < 0.05) and performance rewards with work motivation (r = 0.70; p < 0.05).
Performance variables

There were no significant correlations between any of the variables. There were two negative correlations, sales growth with profit margin ($r = -0.06$), and with return on capital ($r = -0.28$).

Relationships between 'climate' and 'performance' variables

There were no significant correlations and while the correlations were predominantly positive, the largest negative correlations were decision making with profit margin ($r = -0.44$) and with return on capital ($r = -0.35$).

Summary

The strongest correlations which were positive and significant were among the climate variables, particularly co-workers with employee competence and performance rewards. Among performance variables there were low positive and negative correlations with no significant relationships. Between climate and performance variables supervisory style and sales growth ($r = 0.48$) were the strongest but non-significant.
Table 5.7
Means, SDs and correlations matrix for: all variables within Below average performance, Hosiery & Knitwear Manufacturers

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supervisory style</td>
<td>2.89</td>
<td>0.49</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>2. Co-workers</td>
<td>3.16</td>
<td>0.60</td>
<td>0.44</td>
<td>1.00</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. Work motivation</td>
<td>2.75</td>
<td>0.37</td>
<td>0.87**</td>
<td>0.46</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Employee competence</td>
<td>2.88</td>
<td>0.67</td>
<td>0.89**</td>
<td>0.59</td>
<td>0.93**</td>
<td>1.00</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5. Decision making</td>
<td>2.62</td>
<td>0.54</td>
<td>0.86**</td>
<td>0.61</td>
<td>0.71**</td>
<td>0.81**</td>
<td>1.00</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Performance rewards</td>
<td>2.51</td>
<td>0.62</td>
<td>0.55</td>
<td>0.26</td>
<td>0.35</td>
<td>0.34</td>
<td>0.44</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance Variable</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Profit Margin (%)</td>
<td>-3.03</td>
<td>7.26</td>
<td>0.05</td>
<td>0.43</td>
<td>0.20</td>
<td>0.07</td>
<td>-0.07</td>
<td>0.53</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Return on Capital (%)</td>
<td>-25.95</td>
<td>65.10</td>
<td>0.04</td>
<td>0.32</td>
<td>0.22</td>
<td>0.04</td>
<td>-0.14</td>
<td>0.51</td>
<td>0.98**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>9. Sales Growth (%)</td>
<td>-15.00</td>
<td>19.78</td>
<td>0.22</td>
<td>0.59</td>
<td>-0.07</td>
<td>0.104</td>
<td>0.56</td>
<td>0.24</td>
<td>-0.01</td>
<td>-0.10</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*p < 0.05; **p < 0.01; N = 10

Climate variables
All correlations were positive. Supervisory style related positively and significantly with work motivation (r = 0.87), employee competence (r = 0.89) and decision making (r = 0.86). Work motivation related positively and significantly with employee competence (r = 0.93) and decision making (r = 0.71) and employee competence correlated...
significantly with decision making \((r = 0.81)\). The lowest correlation was between co-workers and performance rewards \((r = 0.26)\).

**Performance variables**

Profit margin correlated highly with return on capital \((r = 0.98)\) while sales growth was negatively correlated with profit margin \((r = 0.01)\) and return on capital \((r = 0.1)\).

**Relationships between 'climate' and 'performance' variables**

There were no significant correlations. The strongest and weakest positive correlations were between co-workers and sales growth \((r = 0.59)\) and between supervisory style and return on capital \((r = 0.04)\) respectively. The strongest and weakest negative correlations were between decision-making and return on capital \((r = -0.14)\), and between decision making with profit margin \((r = 0.07)\), and work motivation with sales growth \((r = 0.07)\).

**Summary**

Supervisory style and decision making were predominant in their significant and positive correlations with other climate variables, particularly supervisory style with work motivation, employee competence and decision making, and decision making with work motivation and employee competence.
5.4 Summary of overall findings from the seven tables of correlation matrices

The correlation matrix for the whole sample (Table 5.1) showed strong positive correlations on almost all climate and performance measures, the strongest on climate dimensions being supervisory style with work motivation, employee competence and decision making. The strongest between climate and performance being between co-workers and sales growth and employee competence with profit margin.

Electronic Component Manufacturers (Table 5.2) correlations were generally strong and positive on all climate and performance measures. Some of the strongest climates correlations being decision-making with supervisory style, work motivation and employee competence and supervisory style with work motivation, employee competence and decision making. Some of the strongest correlations between climate and performance were supervisory style with all three-performance measures.

Table 5.3, there were few significant correlations between climate and performance measures among the Hosiery and Knitwear Manufacturers (Table 5.3). However, the entire climate measures with the exception of performance rewards correlated strongly and positively.
For above average performance companies in the Electronic Component Manufacturing Industry (Table 5.4), with the exception of co-workers with profit margin, there were no significant relationships although most were positive.

The only significant relationships between climate measurements among the below average companies in Electronic Component Manufacturing (Table 5.5) was supervisory style with work motivation, employee competence and decision-making, and decision making with employee competence. There were no significant relationships between climate and performance measures. This lack of strong correlation is influenced by a small N (10).

Among the above average performance companies in the Hosiery and Knitwear Manufacturing Industry (Table 5.6), with few exceptions, there were no significant relationships with some of the main exceptions being performance rewards with co-workers and work motivation. There were no significant relationships shown between climate and performance measures.

However, the below average companies in the Hosiery and Knitwear Manufacturing Industry (Table 5.7) showed considerably more significant and stronger correlations notably supervisory style with work motivation, employee competence and decision making, as well as employee competence and work motivation. There were no significant relationships between climate and performance measures.
5.5 **Analysis of Differences**

Tables 5.8 to 5.11 show the results of *t* tests to compare differences across the nine variables (six 'climate' and three 'performance') for the following combinations of companies.

Table 5.8 **Electronic Component Manufacturing**

*Above* against *Below* Average Performance Companies

Table 5.9 **Hosiery and Knitwear Manufacturing**

*Above* against *Below* Average Performance Companies

Table 5.10 **Above Average Performance Companies:**

Electronic Component Manufacturing *against*

Hosiery and Knitwear Manufacturing

Table 5.11 **Below Average Performance Companies:**

Electronic Component Manufacturing *against*

Hosiery and Knitwear Manufacturing
### Table 5.8

differences between above and below average performance companies in the
Electronic Component Manufacturing Industry.  

\[ \text{df} = 18 \]

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisory style</td>
<td>8.31</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Co-workers</td>
<td>3.48</td>
<td>&lt; 0.003</td>
</tr>
<tr>
<td>Work motivation</td>
<td>4.82</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Employee competence</td>
<td>2.90</td>
<td>&lt; 0.010</td>
</tr>
<tr>
<td>Decision-making</td>
<td>3.60</td>
<td>&lt; 0.002</td>
</tr>
<tr>
<td>Performance-Rewards</td>
<td>1.13</td>
<td>&lt; 0.27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance Variable</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit Margin (%)</td>
<td>3.72</td>
<td>&lt; 0.002</td>
</tr>
<tr>
<td>Return on Capital (%)</td>
<td>2.90</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Sales Growth (%)</td>
<td>4.40</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

For comments (see over).
Comments on results shown in Table 5.8

On five of the six climate dimensions i.e. supervisory style, co-workers, work motivation, employee competence and decision-making, t tests using mean scores showed that there were significant and positive differences between ‘Above’ and ‘Below’ average performance companies in the Electronic Component Manufacturing industries. No significant difference was found for performance-rewards ($t = 1.13, p < 0.27$).
### Table 5.9

Differences between above and below average performance companies in the Hosiery & Knitwear Manufacturing Industry  

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisory style</td>
<td>2.08</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Co-workers</td>
<td>2.71</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Work motivation</td>
<td>2.40</td>
<td>&lt; 0.03</td>
</tr>
<tr>
<td>Employee competence</td>
<td>1.63</td>
<td>&lt; 0.12</td>
</tr>
<tr>
<td>Decision-making</td>
<td>1.27</td>
<td>&lt; 0.22</td>
</tr>
<tr>
<td>Performance-rewards</td>
<td>-0.16</td>
<td>&lt; 0.87</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance Variable</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit Margin (%)</td>
<td>3.71</td>
<td>&lt; 0.002</td>
</tr>
<tr>
<td>Return on Capital (%)</td>
<td>2.22</td>
<td>&lt; 0.04</td>
</tr>
<tr>
<td>Sales Growth (%)</td>
<td>3.50</td>
<td>&lt; 0.003</td>
</tr>
</tbody>
</table>

For comments (see over)
Comments on results shown in Table 5.9

On three of the six climate dimensions i.e. supervisory style, co-workers and work motivation, $t$ tests using mean scores showed that there were significant and positive differences between 'Above' and 'Below' average performance companies in the Hosiery and Knitwear Manufacturing industries. No significant differences were found for employee competence ($t = 1.63, p < 0.12$), decision-making ($t = 1.27, p < 0.22$) or performance-rewards, which showed a negative difference. ($t = -0.16, p < 0.87$).
Table 5.10
Differences between above average performance companies in the
Electronic Component and the Hosiery and Knitwear Manufacturing Industries.

\[ \text{df} = 18 \]

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisory style</td>
<td>1.35</td>
<td>&lt; 0.19</td>
</tr>
<tr>
<td>Co-workers</td>
<td>0.95</td>
<td>&lt; 0.35</td>
</tr>
<tr>
<td>Work motivation</td>
<td>0.70</td>
<td>&lt; 0.49</td>
</tr>
<tr>
<td>Employee competence</td>
<td>1.65</td>
<td>&lt; 0.12</td>
</tr>
<tr>
<td>Decision-making</td>
<td>2.11</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Performance-rewards</td>
<td>0.000</td>
<td>1.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance Variable</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit Margin (%)</td>
<td>2.92</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Return on Capital (%)</td>
<td>2.10</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Sales Growth (%)</td>
<td>5.50</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

For comments (see over)
Comments on results shown in Table 5.10

On one of the six climate dimensions i.e. decision-making, a t test showed that there was a positive and significant difference \( t = 2.11, p < 0.05 \) between ‘Above’ average performance companies in both industry sectors. A t test showed that there was only one dimension that was significant, it was also positive, among the ‘Above’ average performance companies in both industry sectors i.e. decision-making \( t = 2.11, p < 0.05 \).
Table 5.11

Differences between below average performance companies in the Electronic Component and the Hosiery & Knitwear Manufacturing Industries.

\( df = 18 \)

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>( t )</th>
<th>( p )</th>
</tr>
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<tbody>
<tr>
<td>Supervisory style</td>
<td>-1.06</td>
<td>&lt; 0.30</td>
</tr>
<tr>
<td>Co-workers</td>
<td>1.38</td>
<td>&lt; 0.18</td>
</tr>
<tr>
<td>Work motivation</td>
<td>-0.74</td>
<td>&lt; 0.47</td>
</tr>
<tr>
<td>Employee competence</td>
<td>0.14</td>
<td>&lt; 0.89</td>
</tr>
<tr>
<td>Decision-making</td>
<td>-0.50</td>
<td>&lt; 0.63</td>
</tr>
<tr>
<td>Performance-rewards</td>
<td>-1.38</td>
<td>&lt; 0.18</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Performance Variable</th>
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<tbody>
<tr>
<td>Profit Margin (%)</td>
<td>1.80</td>
<td>&lt; 0.09</td>
</tr>
<tr>
<td>Return on Capital (%)</td>
<td>1.11</td>
<td>&lt; 0.28</td>
</tr>
<tr>
<td>Sales Growth (%)</td>
<td>3.02</td>
<td>&lt; 0.01</td>
</tr>
</tbody>
</table>

For comments (see over)
Comments on results shown in Table 5.11

There were no significant differences found using $t$ test on any of the six climate dimensions, co-workers and employee competence differences being positive while supervisory style, work motivation, decision-making and performance-rewards showed negative differences. Those showing the greatest difference being co-workers ($t = 1.38$, $p < 0.18$) and performance-rewards ($t = -1.38$, $p < 0.18$).
5.6 **Summary of overall findings from analyses of differences**  

*(Tables 5.8 to 5.11)*

The hypothesis tested whether a more favourable organisational climate as measured by the six dimensions was associated with companies whose performance was above rather than below their particular industry's sector average performance. Partial support for this general hypothesis was found at the following significance level (*p* < 0.05).

Specifically, using *t* tests, no significant differences were found for performance-rewards between any combinations of companies from the whole sample (Tables 8 to 11). Significant and positive differences were found for supervisory style, co-workers, work motivation, employee competence, and decision making between above and below average performance companies in the Electronic Component Manufacturing Industry (Table 5.8).

Between above and below average performance companies in the Hosiery and Knitwear Manufacturing Industry (Table 5.9), significant and positive differences were found for supervisory style, co-workers and work motivation. Performance-rewards was negatively correlated.

The only significant difference found between above average performance companies in the Electronics Component and Hosiery and Knitwear Manufacturing Industry (Table 5.10) was employee competence. However, no significant differences were found
among the below average performance companies in these industries (Table 5.11) although negative differences were found for supervisory style, work motivation, decision making and performance rewards.
6.1 **Introduction**

This contrast between the real world and language creates a dichotomy between real events and linguistic representations of those events (Potter and Wetherall, 1987). However such dichotomies as between the subjective/objective nature of for example 'organisational climate' and 'organisational performance' can benefit from such study since part of peoples' perceptions as employees concerning their employing company's environment is based to an extent on what company managers 'say' as well as 'do'. Again perhaps a re-phrasing of Baker and Hart (1989) - *"It's not what you say, it's the way that you say it".*

The key to discourse analysis is held to be the development of an 'analytic mentality' which takes the form of "*a repertoire of craft skills acquired through practical experience*" (Wooffitt, 1993, p.291).

Competence to undertake these discourse analyses was enhanced through the knowledge and skills gained in the one year course taken specifically to support this research, in the Social Science Department of the Nottingham Trent University. Further practical experience was gained during the 'pilot' stage of this research.
6.2 Procedure

Eight companies, two from each of the four strata

- Sunrise Industry Sector (Electronic Component Manufacturers) / Above Average Sector Performance
- Sunrise Industry Sector (Electronic Component Manufacturers) / Below Average Sector Performance
- Sunset Industry Sector (The Hosiery & Knitwear Industry) / Above Average Sector Performance
- Sunset Industry Sector (The Hosiery & Knitwear Industry) / Below Average Sector Performance

were chosen from the companies who had participated in the climate survey. Their selection was based on both the interests they had shown in the research and the results of the survey, as well as their willingness to discuss on a confidential basis their feelings concerning the results and their implications.

Interviews took place through face to face meetings at each company's head office with a senior executive, usually either the Chief Executive or Human Resource Executive. Assurances of confidentiality and anonymity were given by the author, with regard to all discourses. Requests by the author to use audio recording equipment were refused for all eight deepening interviews. However, since all other procedures for the analysis of such discourses (Potter & Wetherall, 1987; Coyle, 1995; Potter, 1996) have been
adhered to in conjunction with the discourse analysis skills developed course at Nottingham Trent University, the term discourse analysis has been used in this thesis.

While the survey included a random selection of staff the deepening interviews were largely restricted to either the company's Senior Executive or Human Resource Executive, with relevant contributions from other functional management. Nevertheless, the restriction of the study to the senior executive is not atypical of such studies i.e. case studies and deepening interviews, largely due to practical considerations related to undertaking research in business organisations (Langan, Fox and Tan, 1997). In other studies (e.g. Rentsch, 1990) managers are generally regarded as key informants of an organisation's climate and culture.

The procedure employed in facilitating such discourses accommodates what Fontana & Slack (1996) argued for such investigations concerning the congruence between organisational 'climate' and organisational members' psycho-sociological needs,

"The proper task of scientific psycho-sociological research into organisations, is to investigate all those factors that have an influence upon human thought and behaviour. Such investigation should concern itself not with the truth or otherwise behind the experiences and beliefs concerned (which may or may not be outside the province of science), but with the psycho-sociological needs that appear to demand these experiences and beliefs" (p. 269).
The procedure entailed allowing the research hypothesis and the six climate scales to act as a prism through which data were collected. The six summated scale scores were used in the interviews rather than the scores on all the 31 items, since the feedback from pilot studies had shown that organisations typically used information similar to such climate survey dimensions to identify 'gaps', either between their own units (where there were multi-site operations) or between their organisation and others at the level of the climate scales.

In these interviews, data is generated in the form of text and all spoken material is conceptualised as text, it assumed that the texts are linguistically constructed to create a version of events that has action orientation and also that they are designed to fulfil certain functions (e.g. changing, justifying, refuting, etc. behaviour patterns within the organisation) Potter and Welherell (1987). Every text is "Purivocal, open to several readings and to several constructions" (Rabinow & Sullivan, 1987, p.12). So the question is - 'what' functions are being fulfilled by each text and 'how' is it fulfilling them?

This creates on the part of the analyst not a licence for unrestrained subjectivity, but an obligation to both support and test, interpretations which acknowledge that social perceptions such as those viewed through the Perceived Work Environment scales and
items, are cognitive inferences; they are not physical perceptions, nor can they be made universally repeatable without threatening their validity.

Such purposes and consequences have been a central tenet to these discourse analyses. With regard to the possibility of furnishing estimates of inter-rater reliability to establish that interpretations of the data are not idiosyncratic, Potter and Collie (1989) and, more specifically, concerning authentication of interpretations; Coyle (1995) argued that such verifications,

"... are not appropriate for discourse analysis since analysts who demonstrate the contingent socially constructed rhetorical nature of the discourse cannot make an exception for their own discourse. Like the person whose discourse one is analysing the analyst draws upon available linguistic resources to construct a purposeful version of the discourse under analysis ..., ... this reflexivity bridges the chasm that is classically created between researcher and researched and makes it impossible to assess an analysis of discourse using traditional evaluative criteria" (p. 255).

In all of the interviews an attempt was made to create an environment based on the Rogerian 'Person-Centred' model (Rogers 1951) as developed by Mearns and Thorne (1988), of Empathy, Unconditional Positive Regard and Congruence (here congruence is synonymous with Openness, Genuineness and Transparency) in the belief that the
experimental objectives should be perceived by the companies' employees and those executives interviewed as being compatible with their ongoing state of well-being. There is no justification in exposing the company's employees to either emotional stress or the company to have exposed any information that they would wish not to, for whatever reason.

As an aide-memoire in facilitating discourses that focused on the 'organisational climate' factors of the eight companies, each of the eight senior executives, without knowing the identity of the participants in their company's survey or the results, agreed to complete the same questionnaire. They further agreed to score the 31 items, not as they perceived the company's organisational climate but how they believed the employees in the company would have perceived it. Further in an attempt to standardise each meeting a format was agreed beforehand.

In the absence of audio records of the executives' discourse, separate transcriptions of the most relevant and discrete pieces of text are given in the body of the discourse. In addition to analysing these extracts and to impart greater coherence to the overall text, use has been made of other more general but relevant remarks which are not shown as transcriptions in these analyses. What has not been included in these analyses is any form of transcription, which accommodates every 'um' and 'ah' uttered by the executives or to measure pauses in speech production. Such detail is very much less seen in discourse analysis than in conversation analysis.
The meetings (working to the previously agreed agenda) were opened with a summary of this research, with particular emphasis on the research problem, hypothesis and the procedure involved to date. The results of the company survey and the senior executives' own completed questionnaire were presented and discussed. In each case the second stage of the meeting took the form of a visit around the company and, where the opportunity arose, the executive made introductions to various employees from different departments.

The third stage, usually at the suggestion of the executive, involved a review by the executive of the company's main activities including design, manufacturing, and sales. This was followed by further discourse from the senior executive on thoughts concerning both the validity and reliability of the survey findings with regard to their own company's climate and performance. There are similarities here to the Delphi method - a procedure for predicting future events based on the pooling of judgments made by a number of experts. In the eight deepening interviews of senior executives their discourses they suggested represented to some extent a synthesis, which combined the ideas in a holistic way, of other executives in the companies concerning the research problem.
6.3  Deepening Interviews and Discourse Analyses

Deepening Interview:  Company 1

Industry Sector:  Sunrise (Electronic Component Manufacturers)

Products & Services:  The manufacture of multi layer Ceramic Capacitors

Main SIC Codes:  2489 Ceramic goods

Performance within Sector:  Above Average

Interviewee:  Managing Director and Human Resource Executive (who completed the questionnaire.)

Date of Meeting:  10th September 1998

Location:  Norwich

Survey Results

Codes:  Supervisory style (C1)
Co-workers (C2)
Work motivation (C3)
Employee competence (C4)
Decision making (C5)
Performance rewards (C6)

Scale Rating:  1 to 5
1 least favourable
5 most favourable

Survey for this company taken from the field study

<table>
<thead>
<tr>
<th>Climate Dimensions (C)</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
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Scores given by the interviewee prior to the discussion

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<tbody>
<tr>
<td>C1</td>
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<tr>
<td>3.6</td>
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**Discourse Analysis (Company 1)**

The first extract of this joint discourse came from the Managing Director, who appeared very cautious about the meeting, perhaps since he had only been in that position for the past twelve months, prior to which he had been Financial Director for the past five years following a Management Buy-out from a major USA Electronic group. He said:

"*My feeling was that after the Management Buy-out we had to change the culture before we could change the climate; from major corporation subsidiary to medium sized, stand alone, private limited company. The culture change I'm talking about is the recognition that with limited financial resources following the Management Buy-out survival, let alone growth, depended upon maximisation of asset utilisation. Of course I recognised that this would also be dependent on people - although I used to think that if the bottom line was OK the 'climate' would follow. But perhaps we needed the climate to improve first, which is what I believed happened."

The Managing Director, on several other occasions, talked about 'survival', 'current state of the electronics industry' and other short-term considerations including - which comes first - climate or performance. He also reflected a great deal of reliance on the
Human Resource Executive for what he described as the 'Efficiency' side particularly with regard to 'Competencies', Performance-reward systems and selection and training which he referred to as CPD (Continual Professional Development) of Supervisors. In effect he created a warrant empowering the HR executive to carry on the discussion. As the Managing Director had indicated that he would be leaving early, it was also evident that the MD felt that much of their success was due to the HR strategy, particularly on climate.

The Managing Director was then called away leaving the Human Resource Executive to continue. He showed a good understanding of organisational performance criteria as used in the survey, as well as excellent presentation skills concerning the way the company operated.

His down to earth approach was tempered with good understanding (as one might expect from the Human Resource Executive), of how climate dimensions impacted on performance. He quoted "Competencies improvement" which he clearly related to improved productivity, particularly through 'IT' and 'Coaching' skills.

His initial contribution centred on what he termed the coaching style of management that he (with apparently much resistance initially from several board members, including the Managing Director) had introduced some three years ago. He said:
"I believe that the introduction of our coaching style of management with its strong emphasis on mentoring, tutoring and challenging has impacted greatly on the first five of your six climate dimensions. Performance-rewards which at 2.4 is low but it's something I am now giving time to, everyone thinks they are not fully recognised, but we do aim to recognise effort. Perhaps more needs to be done during the new employees' early induction period in the company, how the existing company structure does (or perhaps does not) facilitate such recognition of reward for performance. It's a real challenge."

Here he shows a clear understanding of the relationships between climate dimensions and the many challenges that a business faces on a day to day basis.

The last point reflects back on his own personality that appeared 'firm but fair'. However it was quite clear in his construction that he perceived it a great challenge to improve on the employees' perception of Performance-reward.

Concerning the scale scores in relation to his own he was puzzled by the Employee Competence (C4) score of the employees since, he argued:

"All the assessments we have carried out on levels of both 'task' and 'process' competencies have been reflected the higher ratings scored on my own questionnaire. However I have found this before, it's
insidious or perhaps more deceptive than you think. I know from bitter experience that such skills as these here in this company are very difficult or nearly impossible to replace."

While he felt quite reasonable about the other levels of perception by the company employees on most of the scales, he felt quite strongly about the competence level perception by employees in addition to the previous comments on Performance rewards scale.

He constructed what would arguably be a fair image of the way things are done in the company and even though he was not able to articulate the process of construction engaged in, it was real enough. In a somewhat modest way the executive finished the meeting by saying, "You can lead a horse to water but you can't make him drink."

However, permeating the whole company atmosphere, was a 'winning edge' feeling and in his somewhat modest construction he gave the impression that the employees' perceptions reflected current reality.

His attitude toward achieving better communication and therefore, he suggested, better perceptions, of the organisational climate, was very practical in the sense that he showed understanding of what he referred to on several occasions as management needing good common sense, and to him this common sense often meant that he and
the rest of the management team had to describe in graphic, vivid language, what was happening in the company. His beliefs on this were clearly expressed particularly when he was talking about communication when he said,

"So much of how we communicate is through our tone of voice and our body language. When I was a child and my mother raised her voice and said, 'Trevor', in a certain tone, I knew what she meant. I keep reminding our people, particularly senior managers and supervisors, about the importance of facial expressions, gestures, and voice tone when you are trying to develop a rapport with someone."
Deepening Interview: Company 2

Industry Sector: Sunrise (Electronic Component Manufacturers)

Products & Services: The manufacture, design, marketing and sale of integrated circuits and electronic components

Main SIC Codes: 3453 Active components and electronic sub-assemblies

Performance within Sector: Above Average

Interviewee: Human Resource Executive

Date of Meeting: 3rd September 1998

Location: Maidenhead, Berkshire

Survey Questionnaire Results

Codes: Supervisory style (C1)
Co-workers (C2)
Work motivation (C3)
Employee competence (C4)
Decision making (C5)
Performance rewards (C6)

Scale Rating: 1 to 5
1 least favourable
5 most favourable

Survey for this company taken from the field study

<table>
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<tr>
<th>Climate Dimensions (C)</th>
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<tr>
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Scores given by the interviewee prior to the discussion

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<tr>
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<td>C1</td>
<td>C2</td>
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<td>3.5</td>
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</table>

**Discourse Analysis (Company 2)**

The company, which is Japanese, is a self-contained profit centre on a single site. After the initial introduction of the research study had been made the executive said,

"As I'm sure you're aware, the style of management which permeates most of the Japanese-owned companies is a Coaching style, and the dimensions on the Newman scale questionnaire used, we are familiar with. Lengthy induction programmes support this for new employees with a prominent part played by human skills training. Even more important in that induction, unlike what often happens in the UK, is the prominence of hands-on factory experience."

Here she is seen to be establishing warrant through expositions on Japan's well documented 'business scholarshhip' which still left gaps in her perception of employees' feelings re. Supervisory Style, Decision-Making and Performance Rewards.

When probed regarding the employee lower scores on these three dimensions, it became clear that recent 'leaks' of possible effects on the company of the problems faced by the world's electronics industry and particularly Japan, had had their effects when she said,
"When one considers the level of performance on your three criteria it knocks on the head some of the research I've read regarding favourable performance creating a favourable company climate. It has only taken this economic news to cause this low perception, since I believe if you had taken the survey twelve months ago, it would have been up in the 4s to 5s on all the dimensions."

It is interesting that here she is moving towards a somewhat neutral strategy, even benign arbiter with discourse based on past experience. This is, to an extent, endorsed when she said,

"Because I see climate as quite enduring, prior to your survey I would have thought our employees would have interpreted, or as you've said perceived, the work climate dimensions as they had in the past. Perhaps it reflects back on what you said earlier when we were talking about how careful we have to be when we are trying to access how people are thinking and your comment on the Yorkshire saying 'There's nowt funnier than folk'."

Although she initially based her warrant largely on the 'business scholarship' of Japanese companies, in assuming that the perceptions would have been higher twelve months ago, she hinted on other occasions how companies' climate perceptions can perhaps be influenced more than might be expected by extra-organisational influences
and genuinely seemed surprised and unsure how to react. It is not so surprising considering incidents shown on the television of Japanese companies' executive's reactions to unfavourable news. However, in spite of current economic concerns which, understandably, can influence employers' perceptions, if only through the influence of the 'unknown', the ambience of the whole site was such as to excude, through mood and behaviour, a perception of high performance.

Continuing on the theme of the influence of the current economic situation and how their company even with its high level of performance and favourable climate was facing up to the current reality and preparing its employees to meet such changing circumstances, she said when discussing how she and the management team faced such needs, by saying that a typical comment to an employee would be as follows,

"If you ask someone what's bothering him or what's wrong, you'll get a long dissertation on just that. If you ask 'What do you want?' or 'How do you want to change things if they have to be changed?' you've moved the conversation from the problem to the solution. No matter how dismal the situation, there's always a desirable outcome that can be achieved."

Later she re-inforced this approach by giving a specific example concerning a conversation she had with a senior manager who, having been used to the high degree of personal and company success, was beginning to express doubts concerning how competent he was to change. When she said,
"My comment to this particular manager was, when you say to yourself, 'I can't do that', next ask yourself, 'What would happen if I could?' The reply would be a list of positive, enabling actions and feelings. It would create new possibilities and thus new emotional states, new actions, and potentially new results."

She is soon establishing again her understanding of and the need, particularly perhaps from herself as the Human Resource Executive, to support employees at all levels in accommodating and assimilating such change. This is particularly relevant in such a successful company with a strong Japanese culture which itself informs the climate.
Deepening Interview: Company 3

Industry Sector: Sunrise (Electronic Component Manufacturer)

Products & Services: The manufacture, sale and distribution of electronic components and thick & ipm circuits.

Main SIC Codes: 3444 Components other than active components mainly electric
3453 Active components and electronic sub-assemblies

Performance within Sector: Below Average

Interviewee: Human Resource Executive

Date of Meeting: 14th September 1998

Location: Swindon

Survey Results

Codes: Supervisory style (C1)
Co-workers (C2)
Work motivation (C3)
Employee competence (C4)
Decision making (C5)
Performance rewards (C6)

Scale Rating: 1 to 5
1 least favourable
5 most favourable

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Scores given by interviewee prior to the discussion

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**Discourse Analysis (Company 3)**

The principal strategies that she used during the interview to establish warrant were centred on the strong local knowledge of local organisation culture utilising both her own business experience and her family's strong connections for several generations with the main local industry, 'Railways'. She had a deep understanding and feelings about Swindon and its industrial heritage.

Her feelings on organisational climate came to the forefront early in the interview when she said:

"We have a long way to go. Some of us are very aware of the need to focus more on the 'soft' issues as identified in the survey dimensions, rather than the so-called 'hard' issues. I think this is particularly true of your 'Supervisory Style', 'Work Motivation' and 'Decision-Making' factors, which I'm pleased to see I've tracked the employees' perceptions well. A good deal of this stems from questionable Supervisory style which is too often supported by Senior Management."

Here she uses the close proximity of her perceptions of the employees' scores on the three scales of Supervisory Style, Work Motivation and Decision-Making to reinforce
her belief in her understanding of the former and to some extent the current local work ethos. She had also inferred, at another point, her regret at the passing of the old traditions of the 'Railways' ethos, without specifying what that was.

She later linked the 'Performance-reward' scores in an interesting way to 'wages' when she says:

"The low Performance-reward perception is one of my main headaches in this company. This comes from two sources. Firstly we employ a high percentage of women who are continually comparing their pay with men, often in ways that are not really comparable; there is however some truth in their argument.

However, even when the differences between Pay are explained they still focus on something that is not easy to defend, which is Performance-reward which I believe is about fairness and recognition. I often ask myself is the company being really fair concerning this aspect of fair reward for fair effort."

She reflects here and in other comments, doubts about the fairness of the system. She questions, is there a 'fair day's work for a fair day's pay' and constructs a role for herself, which is supportive of the employees', with occasional statements of, "If I were in their shoes."
She also says:

"People here say they don't mind management being tough regarding wages and salaries, provided they are fair - that's what they say, firm but fair."

Here she reflects, to a large degree, acceptance of the situation in so much that when probed concerning the likelihood of the Performance-reward system being changed, she says:

"I will probably be saying the same thing about the problem next year. If the company can get away with it they will. But what are they really getting away with? You have examined the results. What can we expect?"

From the last three statements there are signs that she, as an individual, finds it difficult to focus as much as she should on the future development of the climate rather than perhaps being stuck in the past. When probed concerning the low climate scores across all six dimensions, as reflected in the company survey, particularly in the light of the closeness of her own perceptions of what the scores from the employees might be, and also about how she felt about her own understanding of why the scores were as they were, she replied that sometimes she would feel as though she was saying to
herself, "They don't understand me." When she was asked to explain how she felt about saying such a thing to herself, she stated,

"Well then, I say to myself, 'They don't understand me. Who are they?'

She then said,

"I say to myself, using a nameless 'they' can be a cop out. Try to be specific about 'who' and 'what'. If you don't know who 'they' are, you feel helpless and unable to change your situation. But if you focus on specifics, you can regain control."

Here she is again establishing warrant to be constructively critical by communicating her ability and willingness regarding her personal introspection concerning a number of relevant factors but particularly her perception of causes and effects of the company climate.
Deepening Interview: Company 4

Industry Sector: Sunrise (Electronic Component Manufacturers)

Products & Services: The manufacture of electrical switches and relays, electronic controls and domestic appliance controls.

Main SIC Codes: 3420 Basic electrical equipment
3444 Components other than active components mainly electric

Performance within Sector: Below Average

Interviewee: Plant Director

Date of Meeting: 24th September 1998

Location: Norwich

Survey Questionnaire Results

Codes: Supervisory style (C1)
Co-workers (C2)
Work motivation (C3)
Employee competence (C4)
Decision making (C5)
Performance rewards (C6)

Scale Rating: 1 to 5
1 least favourable
5 most favourable

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<tr>
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**Discourse Analysis (Company 4)**

Following the introductory part of the interview the executive said,

"Since I’ve been here at the company just 12 months, I have an open mind on both the results of the survey and the financial performance (of the company). Needless to say, the performance (very poor) of the company was the reason for my employment. With regard to my own questionnaire I’ve approached, as agreed, not whether the climate is right or wrong, not how I perceive it, but how I felt the respondents would score on the six dimensions. I also think, agreeing with Personnel, to select randomly and in confidence was the key to a good response."

Here he sets the scene and establishes warrant as an open-minded executive establishing as well that he could as not being responsible for either performance or climate due to his short tenure. He displayed considerable confidence in a supportive way, and it soon became apparent that the subject of organisational climate, albeit sometimes under a different name, was very much part of his personal belief system.
Later, as reinforcers, he examines several posters on his office wall (as well as in the work on our tour) then he said,

"Coming out of the motor industry I had been brought up on problems, particularly as a Plant Director. I would say however that the reason for my success with my people has been due to my 'coaching' style of management, the supporting and empowering that we discussed earlier. Well I'm sure you'd be interested to know that my coaching style of management is born of my having been a sports coach for a number of years both with teams and 'one to one' levels.

It would be difficult to see which of the six factors in the survey would be any more important than any other. But in my case, I started in this company with the main emphasis being on supervisory style. I quickly empowered my supervisors, which in turn led to them doing the same to their charge-hands, and so on."

Here he has quickly developed a framework, which clearly underpins the main factors that he perceives as the cornerstone for the turnaround of the manufacturing side of this company. It became clear at other times during the meeting that there was an excellent customer base and product range which necessitated, in his opinion, an efficient manufacturing operation which in turn would mean a high performance company as a whole.
He questioned his judgment regarding employee perceptions, particularly on the Co-workers, Employee Competence and Decision Making, albeit he was delighted with the employee responses being so much higher than his. He really saw this as a significant improvement since, just before he had arrived, a survey carried out by their own H-R department had shown very low scores on reasonably similar scales to the three in question. He then said,

"I never fail to be surprised how, when one moves just a few steps towards changing to a more supportive style of management, how much it is appreciated and perhaps that's what these scores are reflecting. I forget I've only been here 12 months. It seems like a lifetime."

While a strong warranting device can be to take material such as the differences in the three scores on dimensions co-workers, employee competence and decision making (he did not mention work motivation) between himself and employees and to infer humility, this does not appear to be the case here. He is not claiming humility but he genuinely communicates that impression. Support for this was very evident from the works tour and from a range of people met in the company.

His initial establishment of warrant was such as to enable him to be genuine and open concerning what he inherited without 'blaming' the past and therefore enabling a clear understanding of his achievements and way of doing things. This 'non-blaming' approach is not easily achieved when attempting to change from a below to above
average performance as this company is attempting and achieving particularly over such a short period due to current economic circumstances.

When finally, he was asked to describe, if necessary in philosophical terms, the reasons for his obvious success in creating change over such a short period, he said, "To get what you want from someone, you must learn to ask specifically, to describe precisely, what it is you want. You need to ask someone who can help you. Create value for the person you're asking, figure out how you can help them first. Then ask with a focused belief, with absolute conviction. Finally, ask until you get what you want. Change and be flexible until you get what you want."

Finally, when probed about how, in the so-called 'coaching style' of management, he was not developing within the company he perceived compatibility with his own background as a sports coach. He replied that, when faced with the challenges that he had at this company, he would say to himself, "Remember a time when you were totally successful - in business, sports, financial matters, or relationships? Think about what you did that made you succeed, what qualities or resources you made effective use of. Tap into these positive energies and you will help create your life as you want it."
He is constructed as a person who, in spite of the below average company performance and low climate scores, reflects the competence and willingness to achieve change.
Deepening Interview: Company 5

Industry Sector: Sunset (Hosiery & Knitwear Manufacturers)

Products & Services: The manufacture of knitwear

Main SIC Codes: 4363 Hosiery and other weft knitted goods and fabrics

Performance within Sector: Above Average

Interviewee: Joint Managing Director (responsible Sales & Finance)

Date of Meeting: 18th September 1998

Location: Hinckley, Leicestershire

Survey Questionnaire Results

Codes: Supervisory style (C1)
Co-workers (C2)
Work motivation (C3)
Employee competence (C4)
Decision making (C5)
Performance rewards (C6)

Scale Rating: 1 to 5
1 least favourable
5 most favourable

Survey for this company taken from the field study

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Scores given by interviewee prior to the discussion

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**Discourse Analysis (Company 5)**

Having listened carefully to the introduction to the results of the survey and his own perception of what they would be, he quickly moved to establish a kind of cumulative warranty effect when he said,

"There are so many things that have happened in the company over the past three to four years. To start with, my brother, the other Joint Managing Director, and I bought out my sister and father since he was retiring and my sister wanted to do other work. There were also several other minor shareholders in the family who also needed (as far as my brother and I were concerned) to be bought out, and we succeeded in achieving this.

The problem was the company was losing money and the majority of the family members could not accept that their style of management was, to say the least, staid and very autocratic. With pressure from customers for higher quality and reduced selling prices, my brother and I was forced into quite dramatic cost cutting including people. Although over the past two to three years we have come back to profitability, it's not very high, not that far above the average for the industry sector, but of course a significant turnaround with all the drama that such change brings with it."
The interviewee is creating warrant for the action implemented while at the same time indicating that change was to a large extent customer rather than management led. When probed about how he might relate any learning from this period of considerable change to the possible discriminating influences of the six climate dimensions on the performance of the company, he said,

"In our approach to change, what I didn't appreciate in the early days (which as a result of your survey, I now have a greater understanding) was that there was such a poor atmosphere. Using your survey as a yardstick, my brother and I completed your questionnaire jointly, and as you can see, our evaluation of the employees' feelings is not very accurate."

Here he has little to say, and it needed several probes and some minor challenges before he said,

"To be quite frank, we do have problems which, whilst far less than they were in the old days, are, I believe, recognised by the employees. A good deal is to do with the Joint Managing Directors. I am responsible for Sales and Finance and my brother for Manufacturing and Design. I believe we don't respond to the rapidly changing needs of our customers in our manufacturing operations as we have to today and I know our employees are sensitive to this and it must affect their perceptions of the climate..."
rightly or wrongly. But as you have said, it's not a case of right or wrong but rather how they feel things are."

Here he is creating an image of it's 'rather him than me', without any real evidence or justification being offered. Comments heard during the works visit indicated that the 'sales' are 'giving it away' rather than the interviewee suggests it being 'manufacturing' problems rather than 'sales'. As the meeting progressed he tended to agree that the 'give it away' feeling of some employees may have some truth.

On a more positive and pro-active note he was able to point to a number of initiatives i.e. focus groups and project teams (leaderless type) which had been initiated by management consultants during the past year with examples of employee and customer feedback of a positive nature. He later focused directly on Employee Competence, Decision Making and Supervisory Style which he felt had improved over the past months and perhaps rightly could foresee such changes enhancing employee perception of the work environment. In his most clinical comment he said,

"My brother and myself and without question our customers are working together in order to create a 'customer-supplier' relationship second to none, which is the only way to ensure a substantial improvement programme. But the vehicle for such improvement on a continuous basis is what you have called a favourable climate within the company. I know the action we are taking and the more open style of management from
the old days will achieve what we need and, more particularly, our people will recognise it."

At this stage his warrant has been established on his day-to-day experience of what actually happens in the company. The most favourable employee perception is of Co-Workers which, following such a company visit, one can subscribe to. However with Joint Managing Directorships, it can be argued that scores of 2.8 and 2.9 respectively for Supervisory Style and Work Motivation is not surprising, even in an above average performing company such as this.

When probed concerning the above average performance of the company, and the low perceptions of the employees regarding, in particular, employee competence and decision making (since performance-rewards are low across the whole study sample), he suggested that much of the work had been de-skilled through capital investment, particularly in the design and knitting areas of the company. With regard to decision making he said,

"We do, I admit, have what I have called a traditional textile industry culture which, in some ways I suppose, is similar to the climate we're describing here, and I think people are in some ways conditioned to it. However, some of our younger people want, and are asking for, greater participation in decision making in the company. My brother's son, who is
a senior executive with the company, is a good example. So yes, we will have to address that need."

He constructs, in this last statement, a framework of openness towards change and his whole personality is such as to make people want to please him. He stated several times that he and his brother would clearly want to try and understand a little more why, in such a successful company, the perceived scores were not higher.
Deepening Interview: Company 6

Industry Sector: Sunset (Hosiery & Knitwear Manufacturers)

Products & Services: Design and manufacture of knitted fabric and outerwear

Main SIC Codes: 4323 - Hosiery and other weft knitted goods and fabrics

Performance within Sector: Above Average

Interviewee: Executive Chairman

Date of Meeting: 15th September 1998

Location: Leicester

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Survey Questionnaire Results

Codes: Supervisory style (C1)
       Co-workers (C2)
       Work motivation (C3)
       Employee competence (C4)
       Decision making (C5)
       Performance rewards (C6)

Scale Rating: 1 to 5
              1 least favourable
              5 most favourable

Survey for this company taken from the field study

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Scores given by interviewee prior to the discussions

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**Discourse Analysis (Company 6)**

His opening remarks reflect clear appreciation of the role of climate within organisational strategy. He says,

"Above all over the last few years, there has been increasing confirmation of our conclusions that organisational climate cannot stand alone, and that it has to be part of an overall set of mutually reinforcing organisational improvement activities."

This awareness was reinforced through the linkage he made when he says:

"Our organisation as a whole is now seeing organisational climate not as an isolated activity, but rather as a key element in a wider programme of change activities, and the successful implementation of our TQM system was greatly assisted by our willingness to communicate about TQM and the changes it necessitates."

When probed as to results of the company survey, with particular reference to how it equated to his own perceptions, as reflected in his questionnaire responses, he focused on specific areas for comment when he says:
"Let's look at the first factor, Supervisory Style. As we discussed earlier we have moved from a somewhat autocratic to a more supportive style, based I believe on what you call relationships. The relationships are continually being built on, especially following de-layering where each supervisor now has more people to look after, so people skills are of paramount importance."

Having emphasised the importance of the supportive style of supervision he clearly believes that the new organisational structure that had been put in place would enhance the perception by employees of Supervisory Style. This was from time to time reinforced by his comments regarding the benefits they were experiencing having eighteen months ago began 'coaching' and 'team building' programmes throughout the company. He also commented,

"There are several projects including ISO 9000 where we have utilised our improved team skills to accelerate its introduction. This, I am confident, will have significant influence on most of your climate factors but particularly the Work Motivation, Employee Competence and Decision Making factors... The 'Decision Making' we discussed earlier has improved through what our outside consultants called 'empowering'. With less supervision, but higher quality supervision, this has been a great benefit."
He is constructed as a person who, while recognising or believing that a strong relationship exists between the company climate and its performance, also recognises further opportunity for all-round company improvement and is currently involved in a number of planned initiatives which, while not perhaps initially perceived as being undertaken for the specific enhancement of the climate (some of his board it appears not to think along similar lines regarding organisational climate), he clearly sees continual improvement in the climate as part and parcel of the company's continued success.

In the light of this clear focus from the top of the company on business practices that clearly interfaced with favourable organisational climate, the opportunity was taken to probe further into interviewee belief system concerning the benefits of climate on performance particularly at the company level, even though considerable interest was expressed in individual as well as group performance criteria. He quickly moved to pick up on the personal, what he termed one-to-one coaching, which he argued underpins group performance when he said,

"Coaching is a one-to-one conversation between a manager and an employee. It is based on the specific needs of the employee. In order to coach, our managers are fully aware that they need to discover the employee's needs, whether it is work competence's etc. or personal needs. I believe that one of the most common mistakes many managers make is that they spend too much time telling employees what they
should know, what they should do, and how they should change, that they waste the potential of the one-to-one characteristics of coaching."

Here he is creating a version that infers that performance should not, in the individual sense, be understood as applying only to knowledge, skills, tasks, and objectives. It is the whole person and, in turn the whole company which needs to be kept in focus by both the manager as coach, and the individual employee.
Deepening Interview: Company 7

Industry Sector: Sunset (Hosiery & Knitwear Manufacturers)

Products & Services: The manufacture and distribution of hosiery

Main SIC Codes: 4363 Hosiery and other weft knitted goods and fabrics

Performance within Sector: Below Average

Interviewee: Chief Executive

Date of Meeting: 23rd September 1998

Location: Leicester

Survey Questionnaire Results

Codes: Supervisory style (C1), Co-workers (C2), Work motivation (C3), Employee competence (C4), Decision making (C5), Performance rewards (C6)

Scale Rating: 1 to 5
1 least favourable
5 most favourable

Survey for this company taken from the field study

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**Discourse Analysis (Company 7)**

From the outset of the meeting and during the opening summary of the research and its purpose, his interest and warrant were very clear on several occasions.

Immediately following the opening summary he reflected a strong desire to construct a framework and warrant to facilitate his detachment where necessary from the company's results used in the survey. Reinforcement of this occurred when he says,

"I have, of course, only been with the company for just under two years, having been brought in by the new chairman (and major shareholder) in order to plan and implement a turnaround in the company's fortunes. So it wasn't so much how quick it could turn around but rather that the chairman could see continuous and sustainable improvement. However it has been, and continues to be, an uphill battle, particularly in the light of the state of this industry."

This setting of the stage as it were was made in a clear but also firm way in the detachment he was attempting to create between himself and the past. There was an attempt to construct a version of past and, to an extent, current events when he commented,
"For your information I would like to separate the wheat from the chaff because when I came here there were still a lot of areas which needed urgent attention and it's important that you are aware of this in order that you can get the whole thing into perspective."

With considerable enthusiasm he quickly moved on to say,

"OK, well looking at the survey results and the obvious disparity between how, as you say, I perceived the climate, if this survey had been taken in twelve months time in spite of the tough times we are experiencing in the market, I feel that what has happened over the past twelve months would have worked through in actual changes and also into peoples' minds."

Here we see continued reinforcement of his position. However, he is beginning to move, as he said,

"I feel you understand where I am coming from in all this, change and you know I think, don't you, that I won't try to bluff you."

After this he began to act in a pro-active way. By moving quickly to comments on the results of the survey, he said,

"Perhaps, too, we can look around the plant so that I can begin to identify people and projects that will verify my story. Of course it's not so much a story as what you describe as discourse, which I understand and will try to..."
keep that in mind by focusing on the factors you are interested in. On reflection, I can see that my assessment of the company’s feeling was too much of what I perceive it will be in the future rather than now.”

His openness now was quite apparent and he began to reflect his understanding of each of the six dimensions and the influence on performance and more when he said,

"With the trading conditions our industry is facing, it’s not only our growth that I and my board believe will be influenced but also our ability to survive. With the right climate in this company it will, we believe, help us through.”

The strategy of taking material, such as the backing of his board, in creating a more favourable climate and the actions being taken to achieve this, is a powerful warranting device. He supported his comments when he said,

"The main motivating force, from my point of view, is the very strong belief the chairman has in an open style of communication throughout the company which he backs up with regular focus group discussions with all supervisors together has meant a complete re-think on the quality and attitude of supervisors we have and, as you saw in the works, we have a young professional team who are focused on this style of open and supportive management."
I am convinced that this will strongly influence the other factors but particularly Work Motivation, Decision Making and, of course, Supervisory Style, which is where I believe it starts from. It is beginning to feel right.”

Here he was beginning, in his non-verbal behaviour, to seek a kind of approval of what actions had so far been taken since he took over his position with the company. He then commented on the Performance Rewards which he linked to Co-workers when he said,

“This company was like so many in our industry. It showed a lot of favouritism which reflected in what people were paid. It’s not what you know, it’s who you know. I am very aware of peoples’ attitudes to Performance and Reward and I know with the unions, once you try to change methods of recognition and reward you open up a hornet’s nest; but we are in the process of trying to get the Performance-Reward business on a more acceptable basis for both the company and employees.”

His overall constructions do appear to clarify the base for current and future action. He is a proud and professionally trained executive and such transparency is compatible with a clear understanding of his board, chairman and employees.
His final comment created a framework on which his learning curve to date could, as far as he was concerned, be developed.

"We have in the last month acquired a small competitor. We did it because they had a good order book and customer base but the whole attitude of the workforce was found to be very sour. We are looking to remove the sourness with what you would call a good climate."

With such a below average performing company and quite drastic changes across the whole board of directors and ownership of the company, it is clear that the changes both needed and being demanded by shareholders, directors and customers will require a great deal of management skill, commitment and effort. However what is evident is that the platform for such change is being prepared.
Deepening Interview: Company 8

Industry Sector: Sunset (Hosiery & Knitwear Manufacturers)

Products & Services: The manufacture and embroidery of knitwear and leisurewear

Main SIC Codes: 4363 Hosiery and other weft knitted goods and fabrics

Performance within Sector: Below Average

Interviewee: Joint Managing Director

Date of Meeting: 25th September 1998

Location: Hucknall, Nottinghamshire

Survey Questionnaire Results

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**Discourse Analysis(Company 8)**

At an early point in the meeting he made clear the need for 'change'. He says:

"Up until the last three years the climate in the company tended, I believe, to reflect my father's somewhat autocratic management style, which I understand was fairly typical of this industry which, combined with memory of the 'sweatshop' image, I can see where there is still a long way to go; but it's not easy, but things need to be done. A more 'open' style of management."

Within this first extract he emphasises both verbally and non-verbally his recognition of the need to move from an 'autocratic' to an 'open' management style. He also mentioned that this belief was shared by many of his colleagues in other companies in this industry sector.

In the second and third extracts he goes into more of the reasons for such a belief in the need to change. He also begins to mention the scales used in the survey when he says,

"Change was on the cards as far as the board was concerned and both my brother and I, while going through university and later during our
induction periods into the company, were viewed as the 'young Turks' who would hopefully bring the changes needed."

"As joint MDs my brother and I are conscious of the image we need to create particularly regarding unity between us as a team. I am very conscious of needing to track the 'mood' of the workforce and, apart from the Employee Competence factor, I am quite pleased with my perception of their feelings regarding the other factors."

In the second and third extracts, one of the discursive patterns which was discerned was the establishment of warrant of authorisation for change, although, at this stage, there was little indication of how such changes (whatever they might be) would be facilitated. There was an absence of the feeling that he was pro-active enough. He later identified a valid point concerning the employee's feeling of becoming de-skilled which he sensed impacted on the 'Competence' perception scores.

"Employee Competence, where my estimate of peoples' thoughts was adrift from theirs, is something that we are currently examining, since this also affects peoples' feelings about their 'earnings'. I mean by that, that when I look at some of the capital investment made, it has 'de-skilled' the job and perhaps (as has happened in some cases) people feel that they are becoming just 'machine-minders', which I suppose they are."
At this point, when probed about what other effects this could have on peoples' attitudes concerning the 'climate', he made the point that during wage negotiations, the employees argued that management tended to give all the credit for say improved product quality to improved technology, thus leaving the employees feeling disgruntled about how it would affect recognition of the need for a fair Performance-reward system. At this point, as if to keep up the momentum concerning the effects of the de-skilling, he says,

"Since completing the questionnaire I've begun to think more about some feedback I got regarding the other two factors you call 'Co-Workers' and 'Work Motivation'. I can see where they would want to unite as 'Co-Workers' and also how they might feel de-motivated as machine-minders, although I certainly don't see them as that, I mean just as machine minders. But, as you've explained, it is all about their perception of something."

When challenged to be more specific on what he might do to create a more favourable perception of climate, he did, on several occasions, use the words "valued" and "needed" and how, in the recently de-layered organisation structure he was trying to get over to everyone that "they all needed each other". In support of this he says,

Let me say, I am not happy with the level of scores by the employees or the ones I have given, but I've tried to be realistic, and talking this through as you and I have previously, while I am not happy with these climate
scores, they and you have made me think, because I believe they do represent a reasonably true image of our climate."

The enthusiasm for the need for this to be done, was quite clear. However, probing was needed before he rose to the challenge in a more specific way; he says, "We've already set up 'focus groups' which have been looking at ways of improving organisational effectiveness other than for example, new capital investment or new product design, in other words making the most of what we've got, which, as I'm sure you'll agree, has to be about how we use people."

While he is constructed as an honest and enthusiastic executive, there is a degree of naïveté that permeates his personality such that while he seems to recognise the current reality concerning his company's 'climate' and how it equates to the research hypothesis, he seems unable to link the results of the survey in any holistic framework of change management that would move the company to above average performance.

Toward the end of the meeting several small comments tended to reflect that his warrant based on his position and family connection was somewhat belittled due to a fairly autocratic chairman (his father) who was still of the 'command and control' style.
6.4 **Summary of overall findings from Deepening Interviews and Discourse Analyses**

Although company reports, published accounts, media comment, trade articles and company visits have a number of advantages, the deepening interviews had the virtue of allowing the researcher room for active intervention. In this study the interviews were designed such as to enable the deliberate questioning of the entire sample of the eight companies' executive representatives on the same issues, giving greater comparability of responses. The procedure involved the systematic covering of a range of topics, yet being open-ended enough to allow the respondents to elaborate their views in a relatively naturalistic conversational exchange.

The structuring of the interview procedure was informed from experience gained at both the discourse analysis and case studies training at Nottingham Trent University and the interviewing during the 'pilot' stages of this research. Such experience gave recognition to the important point that interviews, when used to facilitate discourse analysis, are no longer seen as conversational encounters, since the researcher's questions, as pointed out by Potter and Wetherall (1987), become just as much a topic of analysis as the interviewee's answers and set some of the functional context of the answers. This was compatible with using the questionnaire to focus the interviewee's responses not on how they perceived the climate of their company across the six levels, but how they perceived the employees' perceptions of the six levels of climate. The interviews were
in several instances used as the vehicle to offer discourses on how, for example, they as executives might, if needed, bring the two dissonant cognition's into line.

Much of these deepening interviews were about challenging the interviewee executives of the eight companies undergoing deepening interviews, the purpose of which being to invite deeper exploration, particularly of variances in theirs and their employees' perceptions of the organisational climate. As can be seen from the interview transcriptions, this meant creating an interview environment which enables them to 'go below the surface'; to explore and articulate through discourse those aspects of themselves and their concerns regarding the organisational climate of which they were either unaware or dimly aware. The outcome of using the challenging strategies is that they may have gained a new empowering perspective on the company's organisational climate. In effect they will probably have re-assessed their positions and their productiveness (albeit in varying degrees) towards the possibilities for change.

Attempts have been made to view each case with an objective - and occasionally slightly sceptical - eye. Whether or not the executives have genuine beliefs and interests concerning the perceptions elicited from the survey and particularly its implications on their companies' performance is questionable.

Although in the deepening interviews the goal may have been to find as much about the 'truth' as possible, Reissman (1993) reminds us our narratives about others'
narratives (or in this study, the executives' discourse about, among other things, employees' perceptions concerning the organisational climate of their employers' companies) are worldly creations. ... "There is no 'view from nowhere' (Nagel, 1986) and what might have seemed nowhere in the past is likely to be somewhere in the future. Meaning is fluid and contextual, not fixed and universal. All we have is talk and text that represent reality partially, selectively and imperfectly" (p.15).

In their investigation into personal constructs of organisational stability and change, Langan-Fox & Tan (1997) argued that future investigations into organisational culture could benefit from such deepening discussions with a cross section of organisational members to elicit their perceptions and how perhaps they were constructed.

The deepening interviews and discourse analyses are summarised as follows:

**Company 1.** This above average performance company in the Electronic Components Manufacturing Industry showed employee perceptions of climate dimensions as being above the median scale score on all but performance-rewards. Variances greater than 20% between employees and interviewee score were found on employee competence (21%) and performance rewards (37%).

The analysis of the discourse from the interview and other inputs clearly showed that the company as a whole believed that there was a clear relationship between climate
and performance. It was also evident from the company tour and comments that the prime mover of the climate was the Human Resource Executive rather than the Managing Director who, in others' opinions as well as his own discourse, looked to show a belief that if profitability was evident then the climate would follow. It can be argued that the climate of the company is too dependent on the Human Resource Executive who clearly impinges on leadership theory.

**Company 2.** This well above average performance company in the Electronics Components Manufacturing Industry showed employee perceptions of climate dimensions as being above the median scale score on all. There were no variances greater than 20% between employees' and interviewees' scores on any dimensions.

In spite of the current problems in this industry and warnings of redundancies it was clear from analyses of the interviewee's discourse and other comments during the company tour that the favourable climate had a strong influence in facilitating meaningful negotiations between employees and management.

While it can be dangerous to generalise from Japanese style management, the atmosphere in various departments lent credibility to the value of a favourable climate.

**Company 3.** This below average performance company in the Electronic Component Manufacturing Industry showed employee perceptions of climate dimension being
below the median scale score on four of the six dimensions. However there were no variances greater than 20% between the scores of the employees and the interviewee.

The analyses of the discourse and in particular when combined with comments obtained during the works tour offer clear evidence albeit qualitative, of differences in companies with favourable and unfavourable climates. How influential such an unfavourable climate may be is debatable, however, careful observation showed glaring examples of incongruence between the employees and their work environment. This was also evident in the attitude of the Human Resource Executive in the interview.

**Company 4.** This below average performance company in the Electronic Component Manufacturing Industry shows employees' perception of climate dimension being below the median scale score on all dimensions.

Variances between employees and interviewee scores greater than 20% were found on co-workers (83%), work motivation (23%), employee competence (47%), decision making (73%).

In this company a period of transition is clearly evident across a range of activities from competence development programmes to coaching skills workshops.
The Plant Director who has been with the company for approximately twelve months has to a large extent initiated this transition. His low perception of how employees would score reflects a good degree of humility in so much that he has by definition as Plant Director the greatest potential influence on climate dimensions.

Analysis of his discourse reveals much about his own supervisory style with its strong supportive nature.

Several employees expressed their belief that if such a survey had taken place twelve months earlier, it would have reflected much lower scores on all dimensions.

As one of the Plant Director's senior managers commented, "Roy (the Plant Director) has stuck by his guns. He developed a very comprehensive business plan for the three years after he joined us. He also indicated there would be a good deal of pain and sacrifice to achieve the change from extremely low performance in the form of large losses to sustain profit. I would like you to take these survey measurements in another two years, by which time Roy's professional management approach will be fully recognised by everyone."

**Company 5.** This above average performance company in the Hosiery and Knitwear Manufacturing Industry shows employees' perceptions of climate dimensions being below the median scale score on five of the six dimensions.
Variances between employees and interviews scores greater than 20% were found on supervisory style (42%), co-workers (25%), work motivation (24%), employee competences (82%), decision making (30%) and performance rewards (83%).

Analysis of the interviewee's discourse combined with other sources of information and comment obtained during the work tour revealed an interesting dichotomy in that the employees have a strong liking for him as Joint Managing Director and to that end indicated that they feel in a way as if they are working directly for him.

However the reported clashes of personality which manifest themselves into all out war seems to condition employees into an attitude, particularly when manifested in the form of a survey questionnaire, of if they don't care why should we register some form of super atmosphere in the company.

It might be speculated that such a situation in the current economic environment of this industry could easily have significant and adverse effects on performance.

**Company 6.** This well above average performance company in the Hosiery and Knitwear Manufacturing Industry shows employees' perceptions of climate dimensions being above the median scale score on all six.
No variances greater than 20% were found between the climate scores of employees and the interviewee.

Analysis of the interviewee's discourse as well as other comments obtained on the works tour reflected a strong belief that the climate of the company underpinned its success. While it became evident that certain non-executive directors were not that persuaded by its importance, a financial executive made an interesting point that non-executive directors were there to serve the vested interests of the shareholders, whereas he, like others, had a somewhat different agenda.

The success of this company one could argue is derived from much input. However the evidence obtained from the deepening interview and works visit supported the argument that this company had a clear and focused approach to sustaining what they perceive as a winning climate.

**Company 7.** This below average performance company in the Hosiery and Knitwear Manufacturing Industry is in several ways similar to Company No. 4 which is currently going through a period of considerable change which is not reflected by the perceptions of employees concerning the climate dimensions. Employee perceptions of climate are below the median scale score on all dimensions.
Variances greater than 20% between the climate scores of employees and the interviewees were found on three of the six dimensions, *supervisory style* (25%), *work motivation* (52%) and *performance rewards* (43%).

Analysis of the interviewee's discourse and other documentary and verbal evidence from the works tour revealed several aspects of the company which were compatible with the type of changes that had over the last twelve months taken place in Company No. 4.

However perhaps the most clear difference is the personality of the two interviewees, who had similar responsibilities in each respective company and as such this company's progress one could argue, will be slower.

**Company 8.** The scores from the employees survey in this below average performance company in the Hosiery and Knitwear industry showed that one dimension was above and one below, the climate scales median score.

Variances of greater than 20% between climate scores of employees and the interviewee were found on one dimension, i.e. *employee competence* (33%).

Analysis of the discourse and comments from employees met on the works tour, revealed a company who are outwardly attempting to create an image of belief in and
willingness to, change particularly with regard to organisational climate; in spite of the evident lack of congruence concerning organisational climate between the Joint Managing Directors and the Chairman.

In conclusion, even in some of the driest discourses there were little bright touches which I would not want to have missed, since they reflected much of the rich tapestry of their company's life and behaviour which itself reflects back to the need for such method triangulation.

Paraphrasing some of the executives' final comments at the end of the interviews and since,

For many of us, our ways of knowing that our values are being met or fulfilled are outdated. As company executives it's important to make our values congruent with our behaviour.

and further concerning what sort of performance criteria the company is being measured against and in whose interest?

Before this company can really take off, we all need to understand very clearly, who wants what. The shareholders, the management and any other interested parties. Talking to our Manufacturing Director about operating costs and share prices is like talking about chalk and cheese.

Finally from a trade union representative who said,
Of course most people in this company are aware of the need to satisfy several interested parties, but unless we sit down and discuss these relationships there will always be the risk of misunderstandings and fears for the future from all parties. At least in this survey we see the sort of openness, which can only help greater understanding of the requirements of everyone by everyone.
7.1 Introduction

If the same conclusions can be reached using different methods or sources, then no peculiarity of method or sources has produced the conclusions and confidence in their validity increases (Jupp & Miller, 1980; Sherrard, 1997). Webb et al (1966) referred to triangulation used in the context of different methods. Patton (1987) discusses four types of triangulation in doing evaluations:

1. of data sources (data triangulation)
2. among different evaluators (investigator triangulation)
3. of perspectives on the same data (theory triangulation), and
4. of methods (methodological triangulation).

This study utilises both method and data triangulation. Although the case study is a distinctive form of empirical research, arguments have been put forward concerning generalisations from a single case. The answer is not a simple one (Kennedy, 1976).

However the selection process in this study was informed by Stake (1995), who suggested that when there are opportunities for selecting the cases to be studied, it is often more useful to pick those most likely to enhance our understanding, rather than those most typical. Stake further suggested that highly atypical cases could sometimes contribute to the understanding of other cases.
Another argument has been the lack of rigour, which may result from a lack of competence of the investigator, and while case study skills may be difficult to assess Yin (1994) suggests the more commonly required skills are as follows:

- A person should be able to ask good questions - and to interpret the answers.
- A person should be a good "listener" and not be trapped by his or her own ideologies or preconceptions.
- A person should be adaptive and flexible, so that newly encountered situations can be seen as opportunities, not threats.
- A person must have a firm grasp of the issues being studied, whether this is a theoretical or policy orientation, even if in an explanatory mode. Such a grasp focuses the relevant events and information to be sought to manageable proportions.
- A person should be unbiased by preconceived notions, including those derived from theory. Thus a person should be sensitive and responsive to contradictory evidence (p.56).

As previously mentioned prior to undertaking the 'discourse analysis' and 'case studies' part of this research, specific training was undertaken. The case study part of the training programme undertaken was compatible with the suggestions of Stake (1995) which suggest that:
"there is no particular moment when data gathering begins. It begins before there is a commitment to do the study: backgrouding, acquaintance with other cases and first impressions.

A considerable proportion of all data is impressionistic, picked up informally as the researcher first becomes acquainted with the case. Many of these early impressions will later be refined or replaced, but the pool of data includes the earliest observations. Qualitative study capitalises on ordinary ways of getting acquainted with things. The acquaintance is largely cerebral, only a few things get recorded.

All researchers have a great privilege and obligation: the privilege to pay attention to what they consider worthy of attention and the obligation to make conclusions drawn from those choices meaningful to colleagues and clients. One of the principal qualifications of qualitative researchers is experience, added to the experience of ordinary looking and thinking, the experience of the qualitative researcher is one of knowing what leads to significant understanding, recognising good sources of data and consciously and unconsciously testing out the veracity of their eyes and the robustness of their interpretations. It requires sensitivity and scepticism (pp 49-50)."

The study of a contemporary phenomenon such as organisational climate within its real life context, where the boundaries between phenomenon and context are not clearly evident, is compatible with the case study approach. This is because it has been argued (Schneider, 1987) that the attributes and perceptions of people, not the nature
of the external environment, or organisational structure, are the fundamental
determinants of organisational behaviour. The problem of context in the study of
organisational climate and situationism has been addressed by Bowers (1973) noting
that the problem with laboratory experiments as a way to study the relative contribution
of traits and situations to behaviour was that experimentalists play with experimental
treatment conditions until the different conditions have their desired effects. To set up
conditions to have an effect and then to argue for the dominance of situations over
traits, seemed to Bowers an unwarranted inferential leap. The problem here was that
when the laboratory study does what it should (i.e. demonstrates an effect), it presents
enormous constraints on the display of individual differences. Bowers also argued that
with laboratory experiments the major feature of the experiment, random assignment of
participants to treatments or, as in the case of this particular study, the notional
treatment of favourable or unfavourable climate, violates a basic reality in
understanding real time human behaviour. In one of the first major studies attempting to
conceptualise organisational climate Argyris (1958) utilised the case study method to
investigate a Bank Administration. In considering the problems of attempting to study
organisations in objective and rigorous experimental terms only Moser and Kalton
(1971) suggest that sometimes it is more profitable to study intensively a handful of
available cases rather than a representative sample; to use conversational rather than
informal interviewing; not to aim at a set of statistics about a group so much as at a
fuller description of each company in relation to those subjective and objective
influence surrounding organisational climate.
Four companies, two from each of the industrial sectors i.e. 'Sun-rise' (Electronic Component Manufacturers) and 'Sun-set' (The Hosiery and Knitwear Industry) were studied. None of the four companies had previously participated in either the 'survey' or 'deepening interviews'; neither were they chosen because of their performance status, i.e. above or below their industry sectors' average. The cases were selected for the relevant and compelling issues they could illustrate. Apart from their willingness to participate, each company in different ways offered potentially 'rich pickings' concerning their senior management's perceived associations between organisational climate and the company's decision making process in relation to both existing and future performance. Secondly, what was needed accurately to describe their overall impression of the results from the survey particularly in the context of their own company's ethos, were senior executives who appeared as reasonably dispassionate, as one might expect of people in their positions, and who showed a holistic perspective towards the company's activities.

Two further comments are made. Firstly, the following accounts are based in each case on interviews with senior executives from either general, line or human resource functions; attempts to formally corroborate the views expressed by interviewing staff at other levels in the organisations concerned have not been undertaken. Secondly, measurement was not feasible to determine whether, in the final analysis, the management's perceived influence of organisational climate on organisational
performance had either taken place or had in some way influenced the decision making process concerning organisational climate.

As had been previously agreed before the date of meeting, the procedure entailed a summary of this particular piece of research and its overall findings concerning organisational climate and organisational performance with respect to their industrial sector in the UK, followed by a review by the executive of how the company's organisational climate could be described by the six dimensions: supervisory style, co-workers, work motivation, employee competence, decision making, performance rewards.

In each of the case studies, what was done in the field, from gaining access to triangulation of data; was guided by the responses of the employees to the survey questionnaire.
CASE STUDY 1

Industry Sector: Electronic Component Manufacturers (Sunrise)

Products and Services: The manufacture of thick film hybrid microcircuits, semi-custom integrated circuits and specialist modules.

Performance within Sector: Above average

Interviewee: Human Resource Executive

Date of Meeting: 22nd September 1998

Over the past five years this company according to published results (ICC Business Ratio plus) has been in the top six companies in its sector on all three performance measures. For any organisation to survive and grow profitably this company believes there has to be a sharing of experiences and expertise. In order for this to happen their organisational climate is perceived to be both achievement and supportive orientated based on competencies and relationships respectively. There was clear evidence of well-defined and documented organisational procedures and responsibilities.

This climate and performance was quite different prior to a management buy-out (MBO) some seven years ago where the previous parent company had a highly bureaucratic structure with little scope for personal initiative with its command and control style, and where to a large extent government contracts priced on a cost plus basis meant there was little need for tight operational controls within the company with the resulting lack
of motivation at all levels. The company argues that there are two things it clearly
understands about change: first, that human performance has a direct impact on
business performance; this understanding leads to investment to increase individual
and team competence and change behaviour in line with new competitive
requirements. Secondly, it believes it is possible to optimise revenue and profit delivery
during massive change while still ensuring fair performance reward systems. To do this
and help them apply management disciplines to the change process and build deep
skills in how to manage such change, they became an 'Investors in People' company.
Essentially, their aims as an 'Investors in People' company were to replicate the
success of the original 74 blue-chip companies by ensuring they followed four
principles of the standard:-

- commitment
- planning
- action
- evaluation.

These were broken down into 23 assessment indicators, against which the firm's
performance was benchmarked. The company recognised that this initial diagnosis of
their performance was the most useful part of the exercise, particularly as it had to
follow up with an agreed action plan. The first part brought the recognition that far from
being a quick in-and-out exercise, the analysis involved staff interviews, discussion
groups and questionnaires - an initially unsettling experience.
During the past three years the company has established a scheme of mentoring/coaching where experienced senior employees with the appropriate levels of 'people skills' are given the responsibility for adopting new employees. The mentor is responsible for providing advice and guidance, both professionally and personally, and in return the mentee does everything to support the mentor. It is argued that the major factor in job and career success in this company has been mentoring.

This company's performance since the Management Buy Out had been so successful that in January 1998 the company's shareholders, of which a number are part of the management team, decided to sell to a major international group whose excellent business ethos, organisational climate and financial performance are renowned. The previous senior management team has remained in place following the sale. The new group's Chief Executive, in his welcoming address to the company, commented on how he welcomed them into their new family, a family who looked forward to working with and supporting everyone's efforts in this new era in the company's history. The interviewee also argues that a major criterion for the purchase of the company was its favourable 'achievement' and 'supportive' climate.

The strong support was evident from internal newsletters and annual reports.
CASE STUDY 2

Industry Sector: Sunrise (Electronic Component Manufacturers)

Products and Services: The manufacture of printed circuit boards and associated products

Performance within Sector: Above average

Interviewee: Operations Director

Date of Meeting: 21st September 1998

This company, over the past three years, has been in the top six performers in its sector on all its three measures of performance. It is based on three sites, one of which belonged to a company they acquired eighteen months ago.

The main points made by the executive being that their current success is clearly associated with the type of environment they have created. An example given was that their most recent acquisition, in which the company based on a single site and located within some thirty miles of their main site and head office, was purchased from the receiver. However when the potential acquisition was investigated, it was found that the reasons for receivership were purely due to poor financial management or perhaps financial engineering. The decision to purchase was based largely on the ‘climate’ within the company, particularly within ‘shop floor’, ‘supervision’ and ‘technical staff’.
Another of their sites was clearly failing to meet acceptable levels of performance, while being in the same industry sector with similar facilities and financial backing, and was therefore closed and integrated into the latest acquisition's site which is now their highest performing site. Much of the credit for this site's success is, according to the Operations Director, the 'climate'. It is also claimed that, whether it be a department or the whole site, the continued improvement in performance comes from their philosophy that, if they have evidence of 'a better way to do things' and they clearly associate the organisational climate as a vehicle for such 'better ways' then they will 'change' whatever it takes to achieve what they perceive as a 'winning climate formula'. For example, their main site, albeit reflecting above average performance for the sector, has over the past six months entered a programme of change where it is being benchmarked against their latest acquisition regarding the organisational environment.

The current emphasis on all sites is being placed on the development of supervisors' 'coaching competencies' as well as 'decision making', where employees are clearly being empowered to take many more decisions concerning their own personal productivity. However, such empowerment is also apparently being reflected in employees' confidence and trust in a greater willingness to co-operate in teamworking. For example, the quality assurance department and marketing department are working together in a more focused and structured way as a route to increasing innovation, thus positively expanding the company's product range, which is currently a key aspect of the company's marketing strategy.
The leadership's hands-on influence is clearly evident which is manifested in, for example, meetings between all supervisors and key-related personnel every morning which focus on very detailed actions that are or must be taken that day to ensure that each day's plans and adjustments are met. At the meetings feedback is received from each member of the previous day's agreed targets and what actions are being planned for the next day's targets. They then consider the week ahead on a similar basis. They undertake what they term 'continual re-focusing' of where they are now and where they want to be in the future, whether that be tomorrow or in six months time.

One of the disciplines that underpin the organisational climate is measurement, and the Operations Director firmly believes and ensures the organisation has the systems in place to accommodate it.

Because the company is changing so fast, they recognise the dangers of some employees feeling insecure. A current programme in place is aimed at reinforcing the belief that during such periods of rapid change, what is exposed is not a 'surplus' of competent people but a 'shortage', which itself is very motivating for employees to adopt a more favourable attitude toward Personal Development Planning.
CASE STUDY 3

Industry Sector: Hosiery & Knitwear Manufacturers (Sunrise)
Products and Services: The design and manufacture of knitwear
Performance within Sector: Sector average
Interviewee: Managing Director
Date of Meeting: 28th September 1998

The Managing Director formed this company two years ago. She had previously been the Design Director of a substantial company in the same sector which had shown a well below average performance for the past five years and losses for the last three years.

Having in her previous company gained a clear understanding of the critical variables of the organisation particularly in its then current situation, she made a strong and documented case for change. However it appears that a Design Director was not expected to contribute, especially to manufacturing functions, which are obviously the major part of the business activities. Perhaps there were other reasons for such reluctance to heed her suggestions for change. It is clear from her documented suggestions that what she perceived as most important in the organisation was its people - its human performance through a changed environment would, she had argued, help make the difference needed, particularly with respect to speed of
response from the shop floor employees to rapid changes in customer demands, which is renowned in the hosiery and knitwear industry.

With little other than a business plan, which clearly needed to reflect why her new company would succeed, whereas her previous company had not, strong emphasis was placed on her belief in the company climate, and even though in the meetings with bankers she may not have been able to articulate the constructive process in which she was engaged in attempting to justify the necessary financial backing, the bankers felt justified in supporting her business plan. The staffing of the new company came from a mixture of people who had been with her previous company and new people.

In order to understand a little more of what sort of climate exists in such a new company, which still has teething problems, but where there are clear signs that effective action is being taken, particularly where changes to initial plans and processes are having to be undertaken because of the current difficulties in the industry, the Managing Director agreed that a survey could be taken of all employees on a strictly confidential and anonymous basis. The results of the survey, which I personally organised, are shown below.

Codes: Supervisory style (C1)  
Co-workers (C2)  
Work motivation (C3)  
Employee competence (C4)  
Decision making (C5)  
Performance rewards (C6)
The survey showed a high level of agreement (homogeneity) among the employees on all six levels of climate.

The main features of the company's activities that impact on the climate dimension are:

**Competencies:**

Through cross-training in all of the machine and hand-finishing operations of garment manufacture. There are also plans to extend where possible the cross-training in the design department.

**Supervisory Style, Decision-Making and Co-Workers:**

There are no supervisors, the P&IC (Production and Inventory Controller) issues the work schedules which are loaded onto machine and hand finishing operations by a team of employees. Additionally, the roles in the team are changed on a regular basis. Worker co-operation is therefore a key requirement.

**Work Motivation:**

The empowerment given through the decision-making process being cascaded down to shop floor level results in a highly visible self-motivated workforce.
Employees from different functions, depending on the need, will visit customers and suppliers with the Managing Director.

**Performance Rewards:**

Comments received from employees suggest that the firm is perceived as fair since its policy is to pay the maximum it can afford at the same time making available performance figures to justify their decision with full opportunity given for discussion if required to clarify, that reward is linked to company performance.
The company, whose General Manager took over from his father (who owns the company) five years ago, has achieved the enviable record of being in the top three performers in the industry sector with regard to pre-tax profit margin in spite of sales growth which was just on average. The belief of the General Manager in the influence of organisational climate is very clear. Prior to his appointment, the company was run in a very autocratic manner by his father, which had resulted in them always being well below other companies in the industry and local area in both financial performance and in their reputation as an employer. However, over the past five years, many of the local companies who were able to get away with the autocratic and command and control attitude, which is still quite common in this industry have failed to change in line with the changing demands of both the market and the organisational climate conducive to efficient working. The result has been that this company, having accommodated and assimilated such 'market' and 'people's needs' changes, is now not only one of the most profitable in the industry in the UK but also a very popular local employer with all
the obvious organisational climate perceptions of its workforce being a distinct advantage particularly in attracting the right people.

The style of management across all departments and functions appear compatible with a favourable organisational climate. This style is particularly evident in their involvement in both coaching and competence development. The interesting point with regard to wages and salaries is that they are only average for the industry and area. However, the perceived trust in and fairness of, management, seems to explain such acceptance, with clear evidence of a favourable working environment.

Although this has been a very short case study it is perhaps indicative of the General Manager's regard for his father as Chairman, who while delegating full responsibility and authority for the management of the company, still finds the concept of 'climate' difficult to accept. However the General Manager points out, that the Chairman with all his years of experience, has no other explanation for the exceptional positive change that has taken place in this company.
7.3 Summary of Four Case Studies

These studies involved four companies, two in each of the Electronic Components and Hosiery and Knitwear manufacturing industries. They were selected for the relevant and compelling issues they could illustrate particularly through the objective information, perceptions and discourses provided by the executives interviewed, who appreciated and were prepared to identify the methods and processes that have been used by the company to influence the climate of their company particularly in the context of the six climate dimensions and their relationship to performance as used in this study. The limitations of the study using such case studies were commented on in the Introduction.

Case Study 1

This company, which is in the Electronic Component Manufacturing Industry and has above average performance was, until seven years ago, a wholly owned subsidiary of a major USA corporation. The interviewee argued that, up until the time that the Management Buy-Out (MBO) took place, the company had been conditioned into a highly bureaucratic structure compatible with the parent company.

Since the MBO it is argued by the main interviewee that two main changes have taken place in a developmental process over the past seven years; (a) the organisational climate has changed from a so-called 'command and control' type to what they, in the company, term an 'organic' culture which has manifested itself into two dimensions of
what they also believe is climate related and actually call them achievement and supportive climates. This is, of course, attributable to the work of Harrison (1972) who identified these as sub-cultures in which the 'Achievement' culture was based on 'Competencies' and the 'Support' culture based on relationships. The evidence provided in the form of plans and procedures concerning the 'people' side of the company were well defined and evident everywhere in the company. It can be argued that the study shows clear signs that four of the six dimensions and their influences on the company's performance are clearly understood i.e. Supervisory style, co-workers, work motivation and employee competence dimensions. Although it might be speculated that decision-making and performance-rewards would also be perceived favourably by employees the limitations of the study do not permit such assumptions. It was also suggested that a significant reason for the companies agreed acquisition by a major UK Company and competitor was related to what the acquiring company termed a highly favourable internal environment.

Case Study 2

This company, which is in the Electronic Component Manufacturing Industry has been among the top six performers in the sector over the past three years. Prior to that it was well below average.

The clearest evidence of the company's belief in the influences on performance or organisational climate stems from the strategy of undertaking change management
programmes in both existing and newly acquired companies. To achieve favourable organisational climates, such climates are compatible with all of the six dimensions used in this study. One could argue that the implications for other companies are important inasmuch that up to the past few years the people dimension had too often been seen as a 'soft' issue as compared with the 'hard' issue of technology, finance and so on. However, as the change in 'mind-set' began to take place, following their experience with a competitor they bought out of receivership who had failed, it is purported, because of 'financial engineering', quickly became the highest performing company in their group, the success of which they attribute to the extremely favourable climate they inherited with this acquisition.

Up until that point the interviewee argued that their perspectives on corporate values and company performance were based on every theory but the so-called 'soft' issues addressed by individual and group behaviour theories which can be argued accommodate the six climate dimensions, the most evident from the information and discourse provided were performance rewards, employee competence and supervisory style. However the impression gained during the plant walk around supported the perception of a favourable co-worker dimension.

Implications for others, would one argue, is the advantages of being prepared to change, in this case the climate based on proven results.
Case Study 3

This company which is the Hosiery and Knitwear Manufacturing industry is at present performing at the sector average on all three measures.

One might argue that this company would be difficult to match, particularly in its rate of achievement since being formed just over two years ago in an industry where published results and media comment reflect a high level of failures.

The implications for other organisations it could be argued, are several, particularly when it is recognised that the Managing Director started this company having left a low performing company in the same industry, which removes one extraneous variable i.e. type of industry. It is also interesting that while her reasons for wanting to set up her own company were many, her views on how in her previous company the lack of congruence between the managers/directors and shareholder’s interests was very relevant to this study, particularly since she believed such incongruence was well known throughout the company. Here it can be argued is Agency Theory in its most simple form.

As Managing Director her personal supervisory style as perceived by others is, as shown from the discrete company survey, favourable and when the other scores are taken into account no other company in the main survey was perceived so favourably.
Future research, perhaps involving longitudinal studies of such a company, might add considerably to the knowledge concerning the real influence of organisational climate on performance even though leadership theory would also play a major role in such understanding.

**Case Study 4**

This company, which is the Hosiery and Knitwear Manufacturing industry, has as mentioned earlier the enviable record of being in the top three performing companies in the industry sector.

However it is argued that the value gained from this study is two fold. (a) From the evidence both documented and verbal, one might, without too much difficulty, infer that there has been a significant influence of the organisation's climate on its performance and (b) the ability to make such changes is strongly attributable to leadership. Therefore, as with Case Study 3, there is a strong mixture of both behavioural theory and leadership theory.

The other point that has implications for other company management impacts on the challenges that have to be addressed in family owned and run companies. Here the autocratic former chairman (and father of the present General Manager) has, albeit very cautiously, changed in his attitudes toward the concept of organisational climate. It can be argued that the most potent influence on such an attitude change could be
attributed to Abraham Maslow, however it could equally be speculated that leadership theory in the guise of *supervisory style* was also a significant influence.

All of the six dimensions it could be argued, might be perceived favourably even *performance reward* in a company where actual monetary rewards are only average for the Industry.
SECTION 8
DISCUSSION

8.1 Introduction

This section discusses, with relevant conclusions, how well the data fits the original hypothesis in the form of the General Proposition, with relevant conclusions. It also discusses the theoretical and practical implications of the findings. The discussion attempts to present a more integrated and coherent representation of the results, by interweaving summaries and conclusions from the three sources of data, ie. survey, deepening interviews and case studies, in a way that makes clear the distinction and relationships between the objective and subjective findings.

The character of an organisation's internal work environment (particularly as perceived by its members), has long been recognised as a potent influence on employees' cognitions, affect and behaviour. Much work has been done in the field of understanding organisational performance, and the underlying objective determinants e.g. organisational contextual features such as structure, technology and size. Also research has been done to understand the more subjective concept of organisational climate and 'what' constitutes climate - the content; and 'how' it works or can be changed - the process. Little research however, has been found in the literature that identifies discriminating influences that organisational climate may have on objective organisational performance. Studies which have taken place have tended to concentrate on 'growth' (sunrise) industries. Baker and Hart (1989) suggested that
such an approach could often mean that it is difficult to say whether companies are successful because of their organisational climate or in spite of it.

The central aim of the present study was to examine the suspected discriminating influence of organisational climate between, above and below average performance companies within discrete manufacturing industry sectors.

The problem to be addressed is discussed in the following section.
8.2 What was the problem?

The problem faced is that, while there is a wide range of both anecdotal and empirical evidence concerning what factors are critical to business success, e.g. Leadership (Kotter, 1990); Mergers and Acquisitions (Haspeslagh & Jemison, 1991); Re-engineering (Hammer & Champy, 1993); Quality (Deming, 1982); General Strategy (Ohmae, 1983; Ansoff, 1990; Porter, 1990; Mintzberg, 1994), the evidence for the impact of organisational climate, particularly on financial performance, is limited. In a comparative study, Denison (1990) using behavioural data drawn from the Survey of Organisations (SOO) which had been gathered from USA companies between 1966 and 1981, examined a sample of 34 companies, from a range of 22 industries; this measured aspects of culture, climate and structural variables such as communication flow, decision making practices, relationships with colleagues, organisation of work, team building and supervisory support. These were correlated with a number of financial performance measures in the five years subsequent to the climate measurement exercise. Three aspects - source of mission, organisation of work, and quality of decision making practices - were significantly and positively correlated with subsequent financial performance. It is however arguable that ‘organisation of work’ and ‘quality of decision making practices’, rather than being measures of organisational climate, are measures of structural variables, the latter being about decentralisation of authority.
A further problem that needs to be considered concerns whether or not organisational climate is treated as an 'independent', 'dependent' or 'intervening' variable, since it can be argued that while climate perceptions may influence performance, so could performance influence climate perceptions. These two perspectives draw on the work of Lewin (1935) and Schneider (1987).

Lewin's (1935) formulaic approach was that \( B = f(P, E) \) where Behaviour (B) was defined as a function of the Person (P) and the Environment (E). Much later Schneider (1987) by transposing the Lewin formula argued that the relationship between the three components of Behaviour (B), Person (P) and Environment (E) could be interpreted as \( E = f(P, B) \) i.e. the work environment being a function of persons behaving in them.

Findings from deepening interviews and case studies suggest that there may be interaction between climate and performance in both directions. Such potential relationships are illustrated diagramatically in Figures 8.1 & 8.2.
Figure 8.1

Relationships between Behaviour (B), Environment (E) and Person (P) as suggested by Lewin (1935) and Schneider (1987)

**Lewin**

PERSONAL CHARACTERISTICS (P)

ENVIRONMENTAL CHARACTERISTICS (E) (CLIMATE)

PERSONAL BEHAVIOUR (B)

**Schneider**

PERSONAL CHARACTERISTICS (P)

ENVIRONMENTAL CHARACTERISTICS (E) (CLIMATE)

PERSONAL BEHAVIOUR (B)

i.e. $B = f(P,E)$.  

i.e. $E = f(P,B)$.  

235
Direction of Influences in the Relationships between Organisational Climate and Organisational Performance accommodated in the models used in this study.

Lewin (1935)

Schneider (1987)
A further problem that has permeated this study from the 'pilot' stages through deepening interviews and case studies, concerns the psychology of affect - specifically the concerns of employees regarding the influence exerted by non-executive directors and shareholders (particularly venture capitalists) on management where performance criteria in the short term appeared incompatible with the longer term needs of management and employees.

In a piece of research such as this, it can be helpful to place the often dry psychosociological abstracts such as 'organisational climate' and 'effectiveness' in the context of real-life management problems.

The examples of the General Motors (GM) case study (Lorriman et al, 1995), along with the research of Baker and Hart (1989) (see Section 3.3), which both impacted on the possible discriminating influence of organisational climate on organisational performance, highlight such problems, that have informed and influenced this particular piece of research.

While there is a consensus that organisational climate affects employee behaviour and performance (e.g. Holland, 1985; O'Reilly, Chatman & Caldwell, 1991), it has also been argued (e.g. Siehl & Martin, 1990) that the link between climate and performance has not yet been established empirically. This lack of substantiation is attributed both to
problems with defining key constructs (e.g. climate and performance) and to the limited number of rigorous empirical studies in this area.

Examination of existing evidence led to the conclusion that performance in organisations was dependent not only on the aims of the organisation, but also on the processes for achieving such aims. Content and variables in a dynamic strategy need to be supported by the internal process and cohesion of the organisation. Such an internal variable has been defined as the organisational climate, and is suspected to demonstrate a measurable relationship with organisational performance. The literature reviewed supported the idea that there was a problem out there, and that this problem had taxed the minds of several researchers. Work, however, had largely been limited to examining successful companies and little explanation had been sought for those cases where the same organisational climate characteristics were present in less successful ones. Such characteristics had therefore not been deemed to form either a sufficient or a necessary condition for successful corporate performance in a changing environment. Support for this argument comes from the PIMS (Profit Impact of Marketing Strategy) Report (1996) and subsequent conversations with the report's co-author Tony Clayton, Director of PIMS, who claims that their investigation shows that such qualities as organisational environment are an essential ingredient for sustainable and profitable corporate growth. It was also suggested that the corporate environment is intangible, and much harder to measure and assess than, for example, productivity, which the PIMS report argues is a simple matter of 'number-crunching'; on the other
hand, organisational environmental qualities, however intangible, have a major influence in determining success measured, for example, in both profitability and employment growth. A review of the possible theoretical explanations underpinning such investigations, as discussed in Sections 3.2 and 3.3, led from the work of Lewin. It also appeared possible to test empirically the extent to which corporate performance is related to certain organisational climate characteristics.

It was further evident from the PIMS report and the Panorama of EU Industry 95-96 Review, that dynamic strategies in international and competitive markets need to go beyond the allocation of conventional resources to achieve corporate goals; they also need to take into account the organisational climate that will provide the internal context and process for the deployment of resources.

Guided by a theoretical framework utilising Lewinian based models (see Section 4.2), an attempt was made to redress some of the shortcomings of previous work found in the literature. The research that was undertaken is discussed in the following section (Section 8.3).
8.3 What research was undertaken?

The organisational climate literature is characterised by a diversity of research methods. Very broadly, two main streams of research methods predominate: qualitative methods characterised by research that is contextually embedded and requiring interpretation, and quantitative methods characterised by research that is context free, using a priori categories. The pros and cons of these two approaches have been debated in numerous articles (e.g. Reichers & Schneider, 1990; Rentsch, 1990; Rousseau, 1990). It is argued that the main benefits of qualitative methods are that they provide a richer, more comprehensive view of climate. Moreover, because climate is derived from its members and because each climate is unique, proponents of qualitative methods (e.g. Schein, 1990) have argued that it is imperative that climate concepts for each particular organisation are explored, rather than taken as a given priori.

The criticisms of qualitative approaches centre on the lack of 'objectivity' and, therefore, lack of reliability of data and validity of conclusions. Another criticism is the difficulty in comparing qualitative studies, and the tendency of climates to be portrayed as consistent or uniform. However, Sathe (1983) argues that reading a climate is subjective and interpretative, and that,

"the validity of diagnosis must be judged by the utility of insights it provides, not by its 'correctness' as determined by some of the objective criteria." (p.7).
In contrast, the main benefits of quantitative approaches are in the rigour of research, in their suitability for theoretical testing, in developing universal statements, and in facilitating intra- and inter-organisation comparisons. Nevertheless, several authors have criticised quantitative approaches for limiting climate categories to the researcher's favourites, or by being biased towards particular styles of management thinking. It is argued that quantitative approaches distort the climate being investigated which invalidates the study (Luthans, 1989; Rousseau, 1990). Moreover quantitative approaches are limited by their flexibility in handling the 'meaning' of behaviours, and have a tendency to tap into diversity and variability rather than the uniformity of climates. Rather than getting 'bogged down' in debates about methodological considerations as for example fuelled by Morgan (1996), that quantitative and qualitative research are based on philosophically irreconcilable inquiry positions, the methodology for this piece of research has been informed for example by Jelinek, Smircich & Hirsh (1983) and Rousseau (1990) who recommended a range of approaches and Sherrard (1997), who stressed the need to use methods such as triangulation, i.e. carrying out more than one type of analysis, and seeking additional sources of information such as documentary evidence. The advantages of such triangulation were evident from the experience gained during the pilot studies, during which it was decided to utilise the survey method, deepening interviews with subsequent discourse analysis and case studies.
Based on a Lewinian framework in which organisational climate is constructed as that of a psychological state strongly affected by organisational conditions, i.e. psychological and organisational variables in a cause-effect type model that was empirically testable, where one of the models used was, for example, that developed by Burke & Litwin (1992), i.e. 'A Causal Model of Organisational Performance and Change'; a study was undertaken which examined the suspected discriminating relationship between above and below average performance companies within two industry sectors, the high-growth (sunrise), i.e. Electronic Component Manufacturing, and the low-growth (sunset), i.e. Hosiery and Knitwear Manufacturing. The stratification into high and low growth industries with their respective performance levels was straightforward insomuch as the quantitative evidence on performance was available in published results. In this study use was made of ICC's Business Performance Analysis and ICC's Business Ratios Plus directories. The more difficult task was to establish that a company's main source of profitability and sales revenues were generated from their own internal manufacturing facilities rather than from factoring of other manufacturers' products or from being a 'design house' for other manufacturing companies.

The hypothesis in the form of a general proposition tested the discreet and suspected discriminating influences of each of the six climate dimensions as defined in the multi-dimensional climate instrument developed by Newman (1977), and shown in Appendix B, using a five-point agree or disagree, Likert-style response format. The companies surveyed (after agreement with the company's senior management, who undertook the
sampling) were, following an agreed procedure, sampled randomly across the three broad levels of management, supervisory/technical and manual/clerical.

In considering the willingness of companies to participate in the survey, the below average performance companies in both industry sectors were less responsive than their above average counterparts. The rates of response for the Electronic Component Manufacturers were 50% and 67% from below and above average performance companies respectively, and 38% and 62% respectively from the below and above average performance companies in the Hosiery and Knitwear sector. Several reasons were given by above and below average performance companies for non-participation in the survey, which can be summarised as follows:

I. Lack of belief in the concept of organisational climate, which was particularly evident among the below average performance companies.

II. Organisational climate, as with meteorological climate, was perceived as indigenous in a company and, as such it was felt that there was little that could be done to change it.

III. The climate was perceived as being a significant aspect in enhancing both individual and company performance and therefore respondents did not wish to expose the company to any form of outside examination. Such attitudes, although few in number, tended to be from the above average performance companies.
It might be speculated that the high response rate from within companies (average 84%), i.e. an average of 21 respondents from the 25 questionnaires sent to each company, reflects the endorsement given by Chief Executives, as well as Human Resource Executives, following a pre-arranged explanation concerning the content and purpose of the research as well as the assurances of confidentiality and anonymity.

Following the sending of questionnaires and the answering of any outstanding queries, follow-up telephone calls were undertaken until ten usable responses in each of the four sectors were agreed, i.e.

(I) Electronic Component Manufacturers (high growth [sunrise])/above average performance.

(II) Electronic Component Manufacturers (high growth [sunrise])/below average performance.


(IV) Hosiery and Knitwear Industry (low growth [sunset])/below average performance.

Following the analyses of the survey results, agreement was reached to carry out eight deepening interviews with two companies from each of the four sectors. The main reason for their choice, apart from their willingness to be interviewed, was that they had shown an interest in, and a willingness to discuss their thoughts concerning the
implications of the six climate dimensions in relation to their company's performance. Following the interviews, their discourses were analysed for reporting purposes.

In order to increase the validity of the findings, four case studies, two from each industry sector, were chosen (see Section 7). However they were not chosen for their performance, rather for the relevant and compelling issues they could illustrate.

The outcome from the survey, deepening interviews and case studies are discussed in the following section.
8.4 What were the findings?

The empirical evidence presented and discussed in the previous sections, 5, 6 & 7, support the General Proposition (Section 3.4) and Operational Hypothesis (Section 3.5) that organisational climate has a measurable and discriminating influence on organisational performance with regard to profitability and sales growth. While such statistics facilitate a broad generalisation about organisational climate, it allows little explanation about what actually occurred, and there is an implication that the processes by which organisational climate influences performance will be the same in all cases. Even if this were 'correct' there are many exceptions to any rule, and much could be learned about organisational climate by taking a closer look at the individual company.

As well as the statistical analysis of the survey results; and as discussed in Section 5, method and data triangulation facilitated further findings.

It has been argued by Sherrard (1997) that such triangulation utilising such methods as deepening interviews with analysis of the resultant discourses, and case studies, enable the participants to jointly develop a version of the circumstances surrounding the relationship, between climate and performance, based on a construction of what the relationship is really like. It is suggested here that enabling such additional information and insight concerning such potential relationships, is both necessary and sufficient in order to make interpretations of quantitative results a less speculative and more valid...
process. Such triangulation also helped provide, through the analysis of discourses, contextual answers, as to whether the survey findings were appropriate by relating stories, situations, events and anecdotes that supported or contrasted with the ‘dimension’ or ‘item’ scores from the survey.

The findings of this research, resulting from the survey as summarised in Section 5, strongly support the hypothesis in the form of the ‘General Proposition’. Independent $t$ tests showed highly significant and positive differences on five of the six climate dimensions: supervisory style, co-workers (co-operation), work motivation, employee competence and decision-making between above and below average performance companies from the Electronic Component Manufacturing Industry. However, only three of the six climate dimensions, supervisory style, co-workers and work motivation showed significant differences between above and below average performance companies from the Hosiery and Knitwear Manufacturing Industry, although a four dimension employee competence was only marginally insignificant, but positive.

The analysis of relationships showed that when the whole sample, i.e. all companies in each of the industry sectors, were taken into consideration, all of the climate variables, with the exception of performance-rewards with decision-making, correlated strongly and positively with each other, and most of the climate variables with the performance variables. It was noticeable that, as well as being non-significant with decision-making, performance-rewards had the lowest, albeit positive correlation with all the other
climate variables. There were no significant correlations between performance-rewards and any of the performance variables. Analysis of differences between companies at the same levels of performance showed no significance between the two industry sectors, with the exception of decision-making, between above average performance companies in the two industry sectors.

What explanations are possible concerning data that did not fit the general proposition? Analysis of differences showed that in both the Electronic Component Manufacturing & Hosiery and Knitwear Manufacturing sectors performance-rewards were non-significant between above and below average performance companies. Additionally, within the Hosiery and Knitwear Manufacturing sectors, no significant differences were found for employee competence and decision-making. With regard to performance-rewards, it is evident from the deepening interviews and case studies undertaken in this study, that after decades of research on its dimensionality, antecedents and consequences, matters relating to performance and rewards remain constructs of interest to both researchers and practitioners. Arguments from both deepening interviews and case studies suggest that, as far as the majority of employees are concerned, the performance-reward dimension is largely about pay-satisfaction. One reason for the continuing interest is its link to important employee behaviours such as absenteeism, turnover, union voting and extra-role behaviours (Heneman, 1985; Scholl, Cooper & McKenna, 1987; Weiner, 1980). Although there is much in the literature on pay satisfaction and its related constructs, the issue of pay
referents, which was brought up by the interviewees on several occasions, does appear to be under researched. The highlighting of pay referents by these interviewees is relative, since pay referents are an important construct closely related to pay satisfaction because social comparison is the core construct in major theories on pay satisfaction, such as the relative deprivation theory (Davies, 1962), equity theory (Adams, 1963) and discrepancy theory (Lawler, 1971, 1981). Irrespective of the value of research on pay referents, there is little in the literature on the identification of possible pay referents in relation to their influence on pay satisfaction decisions. The findings of the survey showed no significant differences in the levels of performance-rewards perceptions between above and below average performance companies, in either of the two industry sectors. However the level of favourability is higher in the Electronic Component Manufacturing sector. These findings were supported in the deepening interviews and case studies. From these findings it might be speculated that the days of the safe, procedure-driven Human Resource (HR) department, providing what one below average performance company interviewee expressed as, ‘an add-on business support service’ are over, particularly with regards to how the Human Resource (HR) function involves itself in attempting to align performance, pay and rewards to support corporate performance and transformation.

Re-thinking compensation, particularly in the above average performance companies, appears to be widespread. One Managing Director who comments at a deepening interview, which reflects several others opinions, stated “.....well managed strategic
compensation has in our opinion led to better business results, greater productivity and heightened employee motivation and satisfaction”. Again comments concerning performance-rewards, in several below average companies, are well represented in the comments of a Human Resource Executive of a below average performance company, who stated “...due to the board policy in this company concerning performance-rewards, compensation has been badly managed, which demotivates, creates employee turmoil and pushes valued employees into seeking better prospects elsewhere”.

With regard to employees' involvement in decision-making, in a widely cited development in the work stress literature, Karasek (1979) proposed that effects of work demand are mitigated if employees have high levels of decision latitude. More specifically, Karasek hypothesised that there are two elements of the work environment that impact on an individual's level of well-being and the quality of his or her work, namely job demands and decision latitude. Job demands reflect the amount of work required from the employee, the extent to which he or she has to work under time pressure, and the degree to which the employee is expected to complete conflicting job demands. Decision latitude - later referred to as work control (Karasek & Theorell, 1991) - refers to the extent that employees can exert influence over tasks and conduct during a normal working day. The climate dimension, decision making, was particularly relevant in the light of evidence from the survey, which showed highly significant differences between above and below performance companies in the Electronic
Component Manufacturing companies compared to the above and below performance companies in the Hosiery and Knitwear sector, which were non-significant. These findings were supported by the analysis of discourses from companies in both industry sectors.

The 'employee competence' level of significance, \( p < 0.12 \), in the Hosiery and Knitwear Manufacturing companies was partly explained at the deepening interviews and case studies, when it was argued that the high level of de-skilling that had taken place through the introduction of computer aided design (CAD) and computer aided manufacturing (CAM) had left the need for such competence in only a small number of design and technical staff, with the remainder tending to be machine minders. However, the above average performance companies in the Hosiery and Knitwear companies still needed highly competent employees for their high added value and lucrative hand finished garments. From the findings of the deepening interviews and case studies, it is suggested that the reasons for the higher levels of competence in the above average performance companies in the Electronic Manufacturing sector is partly explained by the strong Japanese and USA influence in the sector. Such influence manifests itself for example in the perceived role for supervisors, managers and directors, as that of ensuring that their staff are the most competent possible. It is further argued as, for example, in the case study quoted earlier of GM and Toyota, that \textit{without that critical value system, it is highly doubtful whether any competence development system can be made to work}. The second most important factor in
successfully implementing a competence development is suggested as being the commitment by individuals to their own self-development. While there was strong evidence for this from successful companies who underwent deepening interviews and case studies there was little evidence of enthusiasm or concrete programmes aimed at such development from the less successful companies in either industry sector.

In discussing the deepening interview findings, the first interview (Company 1) concerns an above average performance company from the Electronic Component Manufacturing Industry. The survey of employees showed that all but one of the climate dimensions, i.e. performance rewards, were perceived as above the climate scale's median score. Variances greater than 20% (which is partially an arbitrary level chosen for reporting purposes since several executives had indicated that they were confident of "being able to track within 20% the feelings of their employees on such measures".) between the interviewees' and employees' scores were found on two of the six dimensions, i.e. employee competence and performance rewards.

In the second of the deepening interviews of above average performance companies from the Electronic Component Manufacturing industry (Company 2), the employee survey showed that all of the climate dimensions were perceived as above the climate scale's median score with no variances greater than 20% between the interviewees' and employees' scores. This company, which is a single site profit centre of a major Japanese group was, at the time of the survey, in the process of negotiating a range of
options concerning reductions in operating costs. The analysis of the discourse, combined with documentary and comments from other employees, suggests a strong commitment to maintaining a favourable organisational climate. The high level of employees' perception of climate during such a period is perhaps a testimony to this.

In the first deepening interviews with a below average performance company from the Electronic Component Manufacturing industry (Company 3), the survey of employees showed that two of the six climate dimensions were above the climate scale's median score. They were co-workers (Co-operation) and employee competence with no variances greater than 20% between the interviewees' and employees' climate scores. The analysis of the interviewee's discourse, part of the explanation for the four dimensions, would appear to be the visible incongruence regarding funding for Human Resources between the Human Resource Executive and the Chief Executive; on the other hand the compatibility between the Human Resource Executive (the interviewee) and the workforce could be argued as the reason for the two favourably perceived dimensions.

In the interview with the second of the below average performance companies in the Electronic Component Manufacturing sector (Company 4), measures obtained from the employee survey showed that all but one, i.e. co-workers, were perceived as below the climate scale’s median score. Four of the scores as perceived by the interviewee had variances compared to employees' scores of greater than 20%, i.e. co-workers, work motivation, employee competence and decision making. Analysis of the interviewees
discourse and subsequent discussions with other employees suggests potential favourable changes in climate dimension perceptions.

The first of the Hosiery and Knitwear Manufacturing companies (Company 5) was of above average performance. The employee survey showed that all climate dimension scores, with the exception of co-workers, were below the climate scale's median score. However, the interviewee, who was a Joint Managing Director, showed a greater than 20% variance on all six climate dimensions. Analysis of the interviewee's discourse combined with other evidence allows speculation that the long term prospects for the company are questionable. The main reason appears to be the overt incongruence between the Joint Managing Directors.

The second of the above average performance companies in the Hosiery and Knitwear Manufacturing industry (Company 6) showed that the employees surveyed perceived all six climate dimensions as being above the median of the climate scales with no variance of greater than 20% between the scores.

The interviewee was the Executive Chairman, from whose discourse analysis there is evidence of his belief in, and commitment to, the maintenance of the favourable climate that currently exists in the company. It was evident that this perception by employees of a favourable climate was particularly important in the current demise in the industry in general, as evidenced in the press and trade paper releases shown by the interviewee
during the interview. It was noticeable in his, as well as the Financial Executive’s comments, that vested interests of other agents such as shareholders and non-executive directors, could, if they had not been handled firmly and with diplomacy, have hindered the performance.

In the first deepening interview with a below average performance company from the Hosiery and Knitwear industry (Company 7), the survey of employees showed that all the measures of climate were perceived as below the climate scale’s median score. Variances greater than 20% between the interviewee’s and employee’s scores were found on three of the six dimensions, i.e. supervisory style, work motivation and performance rewards. From the analysis of the interviewee’s discourse and other employee comments the main factor in helping achieve the current changes is the reasonable success the Chief Executive has had in working to the different agendas of the non-executive directors and shareholders, particularly the venture capitalists represented on the board.

In the final deepening interview (Company 8), which was the second of the below average companies in the Hosiery and Knitwear industry, the scores from the employee survey showed that one dimension was above and one at the median of the climate scale’s score. They were co-workers and employee competence respectively. Variances greater than 20% between interviewee’s and employees’ scores were found on one of the six climate dimensions, i.e. employee competence. Analysis of the
interviewee’s discourse plus other information and comments from other employees gave witness to the strong influence of the Chairman (father of the Joint Managing Directors) who, not unlike some of the other companies involved in deepening interviews, have had to face up to the different agendas of non-executives and shareholders. In this case however, it was more of what was not said, than what was said, which was of interest. With hints that the Chairman may have been attempting to balance the interests of other non-participating family members with those of the two Joint Managing Directors who, according to the interviewee, saw themselves as an integral part of the company’s long term development as opposed to some other family members who, it was suggested, had openly stated their intentions to seek an exit from the company through perhaps a trade sale.

In an attempt to seek out rival explanations of the focal theory and examining their plausibility, the four case studies were selected for the relevant and compelling issues they could illustrate. Subsequent analysis showed the sense in the suggestion of Stake (1995) in selecting atypical cases in order to contribute greater understanding to other cases.

In case study number one, which was an above average performance company from the Electronic Component Manufacturing industry, verbal and documentary evidence supported the company’s stated commitment towards the continuous improvement in
the organisational climate, they also related this climate to their above average performance.

Suggestions by this company's management that, while the new parent company's policies showed a strong belief in the benefits of a favourable climate, it was clear from various announcements following the acquisition that the new parent company also saw this company's way of running a business as something the parent group could benefit from, particularly with regard to the influence of climate on performance. This is particularly relevant since the new parent company and this company had competed in the same markets and in many cases with the same customers for several years, using very similar manufacturing technology. However, the interesting point was that this company's performance has been significantly higher than the new parent company.

It can be argued that permeating this acquisition are the first two elements of Schneider's (1987) Attraction - Selection - Attrition theory. However it was also suggested that the third element, Attrition, might also become applicable in those companies who had previously been part of the parent group and who might not be prepared to accommodate such changes in their own organisation's climate.

In the case study number two the company from the Electronic Component Manufacturing industry was above average performance and for the past three years had been in the top six in its sector on all three measures of performance.
This company which occupied three sites, showed a strong commitment to the development of a favourable climate, and in spite of their history of above average performance they argued that they were continually seeking ways of being "better still".

The interviewee (a main board Director) made it clear that their latest acquisition was not influenced by its financial performance, since it was purchased from the receiver. He stated:

"...our main reason for purchasing this company was certainly not based on its 'Balance Sheet' or 'P & L Statement'. It was bought because of what you in your research would call a favourable organisational climate. Much of the lessons we have learned from this new company has 'rubbed off' on our other companies, and set bench marks for the way the group will manage its business in future".

Here, it is suggested, is a clear example of a new acquisition being used as a benchmark, not for its previous performance record, but for the simple reason that the only suggestion that the new owners of the company can give for such a dramatic turnaround in this latest acquisition is the climate that existed on the site before and after the acquisition. Subsequent discussions have shown how well the adopted 'climate' from this new acquisition has permeated the other group companies.
In this case study (number 3) from the Hosiery and Knitwear Manufacturing industry, there was no evidence of a long term favourable performance underpinned by a favourable organisational climate, since the company had only been established for two years. However the utilisation of resources, intelligence, skills and energy of those required to perform in the company help illustrate a number of the compelling issues, that are an integral part of this research. Although this company was not a participant in the survey since it did not have the qualifying three years' documented accounts, the survey of climate perception undertaken showed that the employees’ perceptions of the six climate dimensions were higher on average than any of the forty companies who were part of the main survey. The opinions from a range of employees concerning the company’s rapid growth in both sales and performance since its start up, which at the time was two years, is that while they strongly support each other in all aspects of the business they are also strongly committed to high achievement both personally and as a company.

The strong emphasis placed by this company’s employees on ‘support of each other’ and ‘personal and company achievement’ can be summarised as follows:

**Achievement**

- They share a sense of urgency in attaining worthwhile goals and values; they feel they are working for something bigger than themselves.
They feel stronger and better for being a member of the group. It raises their self-esteem.

They manage themselves, doing voluntarily what they see needs doing.

**Support**

- They support one another in the work; they go out of their way to co-operate.
- They value harmony; they make sure conflicts are resolved to the benefit of all.
- They give their time and energy to others. They are available. They care.
  - They listen.
- They trust that they are viewed as individual human beings by the company.
- They appreciate one another; they acknowledge one another’s contributions.

The final case study (number 4) which was an above average company from the Hosiery and Knitwear Manufacturing industry is an example not only of how, it can be argued, a favourable organisational climate can be seen working to improve company performance, but it also addresses what other private family companies might face regarding management *succession* decisions. The General Manager explained that five years ago when the Chairman was considering relinquishing executive responsibilities and appointing a General Manager, there was considerable debate as to whether an ‘outsider’ should be appointed. Advice was taken from consultants who argued that what was needed at that time, in a company which was showing very poor performance in both profitability and sales, was someone who had the ability to address the ‘people’ issue rather than sales, design or manufacturing.
The success of the last five years has, it is suggested, been boosted by the company's ability to attract and select competent people, which is explained by Schneider's (1987) Attraction - Selection - Attrition theory, since attrition also occurred among employees, particularly at senior level, who could not or would not accept such change in management style.
8.5 What might have been done differently?

The findings of the study broadly support the hypothesis, in the form of the general proposition, regarding the suspected discriminating influences of five of the six climate dimensions used. There has, for example, been no need to either accept the data as uninterpretable or for an interpretation of the data as fitting hypotheses different from those originally suggested in the general proposition. However irrespective of such findings from the survey there are still deep issues of validity which go to the heart of most inventory-style data collections and as yet no indisputable test of validity for climate instruments has been identified.

According to the literature, Sparrow & Gaston (1996) climate survey data are usually numerical and tap facets of organisational and management style, espoused values and permitted behaviours. They measure - or at least quantitatively represent - those behavioural and value facets of climate that may be generalised across all organisations.

This however does not imply that climates are equivalent across organisations. Rather, a collective set of constructs are deemed to be representative of life within most organisations and can be used to both distinguish between, and then generalise, across them. Despite the methodological issues associated with this proposition, evidence obtained from deepening interviews and case studies suggests that climate survey data have proven to be an attractive tool for a number of organisational change
initiatives under consideration and/or already undertaken. This is particularly so in the above average performance survey companies interviewed, as well as some of the case study companies. It would appear that climate data facilitates the measurement of 'gaps' between existing and future desired states of affairs (the climate espoused versus the climate as experienced). This considerable face validity has led to the question 'what might have been done differently?' in order to gain a greater understanding of the influence of organisational climate on performance.

The evidence obtained from this study, particularly that from deepening interviews and case studies, support the findings of Jones & James (1979) concerning the relationships of individual and aggregated work environment perceptions, particularly that climate is an attribute of the setting only in the sense that the people in a setting are an integral part of that setting. It is therefore suggested that what might have been done differently could have been to have included more people in more companies in the two industry sectors in all stages of the study, rather than, for example, including more industry sectors since no evidence has been found in the literature that climate is industry specific. Additional suggestions concerning potential modifications to procedure derives from deepening interviews and case studies interviewees who argued that climate perceptions could be influenced by people other than full-time employees, such as non-executive directors and investors, particularly venture capitalists. These stakeholders, it was argued, had a strong influence in the way the company planned for and measured its performance, particularly performance criteria
which influenced management bonuses and short-term results. Another modification to the procedure involved in this study might therefore have accommodated interviews with non-executive directors and shareholders. Further support for such changes came from several of the executives who argued that some of these so called outside people gave an impression of the pursuit of self-interest at the personal level and goal conflict at the organisational level which, if true, would impact on both ‘Expectancy’ and ‘Agency’ theories. Implications of such suggestions are discussed in the next two sections.
8.6 What, based on the findings of this study, were the implications for Lewinian and other theoretical approaches?

All theory, dear friends, is grey, but the golden tree of actual life springs evergreen.

Johann Wolfgang von Goethe, 1749-1832

Testing of theory is a central activity in organisational research. Implications for theory arising from deepening interviews and case studies is likely to have important strengths like novelty, testability and empirical validity, which arise from the intimate linkage with empirical evidence. The theoretical framework which underpins this work utilises four models -

Litwin & Stringer's (1968) models:

(1) A Model of Motivation and Organisational Climate (see Fig. 2)

(2) A Subjective Model of Determinants of Behaviour in Organisations (see Fig. 3)

Katz & Kahn's (1978) model:

(3) General Systems Model of Organisational Functioning (see Fig. 4)

Burke & Litwin's (1992) model:

(4) Model of Organisational Performance (see Fig. 5)

These people extended Lewin et al's (1939) work on the creation of social climates to the work setting. They reasoned that organisational practices and procedures, especially managerial style, can influence the perceptions employees have of the major
orientations, including goals and values, of the organisation. Thus following the gestalt psychology orientation of Lewin, they assumed that organisations communicate a particular 'atmosphere' or 'climate' to their employees through behaviours toward employees. Litwin & Stringer (1968) and Burke & Litwin (1992) stressed the role of individual motivation, particularly the need for achievement.

The methodologies used in this study, while utilising the Lewinian proposals concerning the influence of the work environment on individual performance, also recognises that Lewin was in his 'field theory' not proposing his work as a theory so much as a methodological approach; Lewin (1952) stated: "Field theory is probably best characterised as a method, namely, a method of analysing causal relationships and of building constructs" (p. 45). However it has also been argued by Schneider (1987) that Lewin may have overstated this relationship, although Lewin argued that rather than suggesting a strictly formulaic approach he was indicating a way of thinking about relationships between the Person (P) and the Environment (E).

An advance of Lewinian theory utilised in this research, and which has now gained general acceptance, comes from the work of Jones and James (1979) concerning the aggregation of individuals' climate perceptions. The difference between psychological climate as used in Lewin's formulaic approach, which hypothesised that behaviour is a function of person and environment, i.e. $B = f(P, E)$, is that, while psychological climate is the meaning an individual attaches to work context, organisational climate, as used
in this study, is the aggregated meaning, i.e. the typical, average or usual way people in a setting describe its climate, is an attribute of the setting, only in the sense that the people in a setting, are an integral part of it. The general proposition of this study has been that employees' perceptions of the attributes of their work setting may be important for their behaviour in it.

Another aspect of this study, which is particularly Lewinian, is its strong emphasis on the individual employee's perception of this work environment, and concerns the aetiology of climate in so much as the explanation or assumption shared by many researchers, e.g. Payne et al, 1976; Payne & Pugh, 1976, has been that the climate in a setting is a function of either the structural attributes of the setting (size, technology, hierarchy of authority, and so forth) or the result of more immediate interpersonal and job design practices and procedures (leadership, participation in decision making, and job challenge/variety). However, if people's experience is viewed as the only source of knowledge, then it is here that the intuitively cogent concept of organisational climate becomes a paradox of empiricism. Since in emphasising the external world as the source of climate the paradox is that climate is a perception, yet the nature of the people doing the perceiving has, according to the climate literature, received little attention and which in this study informed the methodological approach to include such individual feedback through deepening interviews and case studies, in addition to the survey.
This is particularly relevant in this study, since because the level of analysis is the company, it is necessary to aggregate the individual perceptions of climate and use the mean score to represent the climate of the company.

Aspects of this study which can also be explained through a Lewinian approach have been its interactionist perspective in relation to both people within the organisation as well as other agents, such as non-executive directors and shareholders, all of whom are potential influences on how organisational climate is perceived by employees.

Theorists and researchers examining the relationship between climate and effectiveness, such as Pritchard & Karasek (1973) and Denison (1990), suggest that where employees feel a greater involvement in decision making, where opportunities for career developments are available, where there is a commitment to information sharing and communication and where there is a sense of shared vision and support, then these will lead to greater effectiveness. The findings from the deepening interviews and case studies undertaken in this study tend to support these findings. However, in contrast, a small number of company executives subscribed to the argument that in their own particular companies an improved performance had led to a more favourable climate. Such perceptions as these are consistent with Mullen & Cooper's (1994) conclusion that group effectiveness determines group cohesion, rather than the reverse. Such interaction in the direction of performance influencing climate is compatible with Schneider's (1987b) argument that Lewin (1938) may have overstated
the case when he hypothesised that behaviour is a function of person and environment, i.e. \( B = f(P, E) \). Schneider (1987b), using the same formulaic components as Lewin, i.e. \( B, P \& E \), proposed that environments are a function of persons behaving in them, i.e. \( E = f(P, B) \), however this is simply a transposition of Lewin’s formula. That said, however, it can be argued that if these components are reversible, it would suggest that climate, rather than being an independent variable, might be viewed as an intervening variable, ‘moderator’ or dependent variable.

Further empirical evidence in the form of company executives’ experiences reported during both deepening interviews and case studies, which suggests implications for the Lewinian approach to climate research, concerns the notion of the person-environment fit, which has long been a focus of theory and research in vocational, organisational and related research domains (of Aronoff & Wilson, 1985; Chatman, 1989; Morse, 1975; Osipow, 1987; Pervin, 1978; Schneider, 1987a; Ostroff & Rothausen, 1997)). Underlying the person-environment fit concept is the assumption that individuals will be more satisfied and perform better, and that the organisation will be more effective when the attributes of the person and situation match or are congruent. Support for this belief was particularly strong among several of the Human Resource Executives who participated in the deepening interviews and case studies, although several of the dimensions they commented on with regard to their own company’s were either not included in the survey scales or would not be regarded as climate dimensions, e.g. job satisfaction. Other factors they commented on when considering the person-

The significance of the person environment fit is that it relates directly to Schneider's (1987a) proposal that people and organisations become integrated through interaction and a cycle of Attraction - Selection - Attrition (ASA). In other words people are attracted to organisations which have characteristics similar to their own (or from which they can obtain outcomes they desire) particularly 'need satisfactions' (Vroom, 1964; Wanous, 1980), and thus the organisations select people who have particular competencies and attributes that 'fit' the organisation.

The evidence obtained from the deepening interviews with above average performance companies and certain case studies suggested that within particular companies there were strong similarities among the employees spoken to, which were supported by the particular company's survey results. Such findings are compatible with the Schneider (1987a) argument concerning Attraction - Selection - Attrition (ASA) theory.

It can be argued that Lewin, eg. Lewin et al (1939), failed to measure climate; rather climates were inferred from experimental manipulations. So, for example, Lewin et al (1939) 'created' three kinds of social climates in the classroom in order to determine what effect different leadership styles had on the behaviour of school boys. In their
study, the climates were inferred and unmeasured. In this study one form of methodological progress that has been utilised has been the attention given to measuring climate before investigating its relationship to other concepts.

Methodological advance utilised in this study has been the concern of earlier researchers to differentiate climate from attitudinal measurers such as job satisfaction. Some theory and research has shown that climate is not demonstrably different from job satisfaction (Guion, 1973; Johanneson, 1973). They suggest that when climate perceptions were considered both evaluative and descriptive in nature, then climate and job satisfaction fell under the general rubric of attitude research. However, other research (Joyce and Slocum, 1979; Lafollette and Sims, 1975) and particularly Newman, 1977 (whose Perceived Work Environment (PWE) instrument was used in the study survey) has argued and shown that when climates are conceptualised descriptively (as beliefs), then climate and job satisfaction are divergent concepts. When survey respondents are specifically instructed to separate their descriptions of the work environment from their evaluation of that environment, (as was agreed with respondents in this study), results indicate that they are able to do so. In conversation with Dr John Newman (originator of the PWE instrument) he argued that this last requirement had been the cornerstone of the instrument's accepted value.
What, based on the findings of this study, are the implications for management practice and research?

To conclude, it is appropriate to briefly revisit the general proposition posed at the outset of this study i.e. certain discriminating organisational climate factors are associated with 'high' and 'low' performing dynamic market place companies. The empirical evidence presented and discussed so far, in this and the previous sections, indicates that several organisational climate dimensions appear to have a discriminating influence between above and below average performance companies within the two industry sectors examined.

Crucial questions asked in this thesis concerns how far there is a co-variance between a favourable organisational climate and organisational performance or what is the strength of recommendation that could be made to the idea that certain dimensions of climate are a key to successful company performance.

Such answers depend strongly on the reliability of individual perceptions of climate. The deepening interviews and discourse analyses subsequent to the survey, gave little indication that the survey respondents' perception of climate may have only reflected their state at the time, and as such did not contradict the enduring aspect of climate as proposed by Moran & Volkwein (1992) in which they stated that organisational climate was....."a relatively 'enduring' characteristic of an organisation which distinguishes it from other organisations".... (p.20).
However, in spite of the evidence presented, a question raised by a number of executives from the below average performance companies who did or, in some instances, did not participate in the survey can be paraphrased as “so what?” needs to be addressed. Based on the evidence from deepening interviews and case studies it is suggested that when the implications of organisational climate are considered by such company executives their concerns can be synthesised into questions concerning the ‘content’ (the ‘what’) and the ‘process’ (the ‘how’) of potential relationships between organisational climate and performance.

The ‘content’ when discussed at deepening interviews and during case studies appears to be the first stumbling block, i.e. few executives appear to be knowledgeable of the concept of organisational climate although some believe they have a passing knowledge, usually from the press, concerning organisational culture rather than climate. It is suggested that the findings from this research can help achieve such understanding of how organisational climate can aid performance since there was clear evidence of a belief in the need and a willingness to understand its implications, particularly from the more successful companies in both industries. A useful example of such beliefs come in the form of a comment from a Managing Director who, when discussing employee competencies, remarked.....“I passionately believe in the need for effective education and training to enable people to begin making optimum use of skills...and it seems to me that such research findings as these shown here can be
used as a lever to persuade my fellow directors of the financial justification for further implementation and auditing programmes of competence development at all levels throughout the company...”

There was evidence in some of the discourse analyses that several dimensions of climate are associated with both 'cognitive' and 'affective' sources of motivation in relation to people's levels of perception of the level of favourability of climate dimensions. This was particularly evident regarding the effect that climate had on people at all levels.

'Affect' and its causal links to performance which can be inferred on the basis of motivation theories is an important phenomenon when considering influences on organisational performance and can help researchers and practising managers in the understanding of, for example, the strategic making decision process in organisations. This artefact of organisational climate is an important phenomenon, as strategic management involves developing the long-term direction and objectives of the entire organisation (Johnson & Scholes, 1993; Hickson et al; 1986).

Strategic decisions, particularly in the deepening interviews with above average performance companies, were acknowledged as fundamental to the organisation's survival, let alone its above average performance.
Strategic decisions concern the fundamental nature of the organisation itself, for example: decisions about the activities the organisation should engage in; acquiring and divesting resources, including human resources and business units; and the nature and the pace of organisational change (Asch & Bowman, 1989).

There is a growing interest in the effect of organisational climate influences in organisation and management theory generally, yet it remains under-researched in such areas as strategic management processes (Walsh, 1995).

However, a growing literature on the role of cognition in strategic management, eg. (Walsh, 1995), recognises the influence of both individual cognitive processes and social processes on strategic decisions, for example, in research into the differences in managerial cognitions of competition (Daniels et al, 1994). How does the organisational climate and affect, influence management's strategic decisions? First as far as cognitive processes are concerned, it is clear that strategic decision making is neither rational or linear. Nevertheless research does indicate that each strategic decision passes through three stages at least once (Mintzberg et al, 1976). These are recognising that a decision needs to be taken; searching for information to determine key factors and possible options; and making a choice. These stages can be repeated many times before a final decision is made (Pettigrew, 1990). The key conclusion from this as it applies to the cognitive tasks of managers in these three stages is that it
involves attending to organisational and economic climate. Managers need to locate key issues that may influence the organisation or the likely success of different options.

The next set of implications for management practice that can be made from this piece of research concerns the potential use of 'discourse analysis', albeit in perhaps modified form, in day-to-day management practices, particularly utilising a coaching style of management in order to create an atmosphere of trust and therefore encourage such discourses (Kinlaw, 1993).

In such situational investigations as suggested by Fontana & Slack (1996) "when, concerned with the congruence between organisational climate and organisational members' psycho-sociological needs, the concern is not with the truth or otherwise behind the experiences and beliefs concerned (which may be outside the province of science), but with the psychological needs that appear to demand these experiences" (p. 269). Evidence from deepening interviews and case studies suggest that managers in the more successful companies, in virtually any situation, appeal to the facts, remembering that in such situations what is a fact. Descartes (17th century) reminds management of cogito ergo sum (I think therefore I am) which may well be the guiding influence of the respondent to whom the 'appeal for facts' is being directed. However, as was found in the deepening interviews and case studies undertaken, attempting to establish what really happened compared to what was only invention, can be a challenging but powerful device, as was evident from the resultant openness,
genuineness and transparency of their senior executives who participated in the deepening interviews and case studies. Discourse analysis sees language not as simply reflecting psychological and social life but as constructing it. It rejects the idea that there are objective truths 'out there' that can be accessed if the appropriate scientific methods are employed. Instead, language in the form of discourses is seen as constituting the building blocks of social reality (Coyle, 1995).

Discourse analyses also assumes that all linguistic material has an action orientation, that the speaker uses to perform particular social functions such as justifying, questioning and accusing, and achieve this by employing a variety of rhetorical strategies. The point concerning accessing social reality through the use of discourse analysis was commented on during several of the deepening interviews and case study discussions. In one particular instance a senior executive from a below average performance company from the Electronic Component Manufacturing industry, made the point to one of his fellow directors that they as a company might have done much better with a recent major engineering project if they had listened and analysed more carefully the points being made by some of their employees concerning the problems that had apparently been encountered in similar projects. The executive commented that "such attention to and analysis of what was being said by several people at the time would, I am convinced, given all of us a much better insight into the human issues associated with the management of such a complex and politically sensitive engineering project, including team working arrangements between internal and external customers,
and in-house departments, but again do we have the right climate for such openness from our people?"

Subsequent to the deepening interviews and case studies, comments were received from several senior executives regarding the benefits they felt could be gained by more ‘openness’ among all those who had an interest in the organisation’s performance. With particular emphasis given to the views of who were often called “the other interested parties, such as the non-executive directors and shareholders”.

What further might be speculated concerning the level of the climate’s favourability? From the findings further areas might include greater attention to the performance-rewards dimension, which showed no significant difference between above and below average performance companies. Drawing on the evidence discussed in Section 8.4 there would appear to be a strong argument for alignment of the company’s compensation strategy with its business goals, and also with employees’ needs, aspirations and motivations, which themselves could be more clearly identified from an audit of organisational climate.

Another area of potential climate enhancement might be what can perhaps be described as a ‘coaching’ style of management integrated into a policy of continuing professional development across all levels of employees. With regard to a coaching style of management it is suggested that in the more successful companies examined,
although like many the managers often contributed directly to the results through their technical competence, they believed that they produced most results \textit{indirectly} through the wills and competencies of others and that 'coaching' utilising what inputs (Kinlaw, 1993) are identified as contributing to a more favourable organisational climate, i.e. the mentoring, tutoring, counselling and challenging of employees.

‘Achieving results through other people’ has become a standard description of the work of managers and supervisors. It is argued here that this definition is, however, inadequate and misleading because it assumes that managers can directly control the performance of others to obtain desired outcomes. The finding from this study would suggest that the key is the word ‘\textit{desired}’.

If managers and organisations can establish enough policies, enforce enough rules and invoke effective rewards and punishments, and if they practise rigorous oversight and appraisal of performance, they may achieve a \textit{satisfactory} (or average) level of performance. But from the deepening interviews and case studies undertaken in this particular study, no one in the above average performance companies showed any belief that satisfactory, or average, performance is good enough. One Chief Executive of an above average performance company stated: "\textit{In a world of international competition, if managers accept satisfactory performance, they inevitably accept a loss in competitiveness, a decline in market share, stagnant capital growth and decreasing profitability.}"
Many of the company executives interviewed in this study, particularly those from the above average performance companies in both industry sectors, placed strong emphasis on organisational climate and its perceived influences on behaviour and performance at both the individual and corporate level. However among the below average performance company managers, the suggestions were that they tended to manage according to the belief that what people do is simply the result of their own decision, i.e. simply a reflection of their 'inner lives'. In above average performance companies in both sectors, managers tended to work on the assumption that what their employees do could be seen sensibly as a function of environmental events that surrounded them in the companies.

Areas of further investigation suggested by this project might include investigating the benefits of bringing out more information concerning whether the person-environment fit is more appropriate for some specific dimensions of climate and not others, and how this might influence both individual and organisational performance, which while often seen as perhaps 'common sense', could be to systematise it further and make it more appropriate as a body of knowledge, which could be regarded as scientific.

Researchers might investigate further on a longitudinal basis, the problem identified in this study, where while managers and directors are largely aware of their roles as 'agents' of shareholders, they showed awareness of the basic question in any
formulation of effectiveness, i.e. "effectiveness for whom?" (Van de Ven and Ferry, 1980). Conceptually, this fundamental question implies a set of shareholders or constituents (Ross, 1980) who have interests that may be overlapping, compatible, opposed or mutually exclusive. Evidence of such incongruence that can arise was identified in this study and is compatible with the suggestions of Holstrom, 1979 and Fama, 1980. In this study climate was aggregated to company level (following assumptions in the climate literature about measuring climate at the appropriate level of analysis). However it is plausible that institutional factors (such as expectations of other agents indirectly involved in the organisation (e.g. ‘Venture Capitalists’ and ‘Non-Executive Directors’) may impact upon members’ perceptions of their organisations. Such influences might be explored in future research through ‘Agency’ or ‘Expectancy-Value’ theories.

Michael Hammer has commented that "the biggest lie told in most organisations is that 'people are our most important asset'.” The findings of this study suggest this is both true and deeply untrue, and supports the suggestions of Patterson and West (1998) that there is a big gap between the rhetoric of people management in organisations and the reality, giving the lie to the 'most important asset' argument. At the same time the most empirical of the findings of this study show that it is the employees' attitudes and perceptions of their organisation's climate which seem to account for the largest part of the variation in the organisational performance, irrespective of whether the companies are in the 'sunrise' or 'sunset' industry sectors. Finally, although it would be highly
problematic, further testing of the suggested links between climate and performance would seem inevitable from the results of this study; since, as suggested by West et al (1998), it cannot be claimed that the findings establish that performance is always predicted by climate (or the reverse) in this or other contexts.

Investigating whether collective organisational have some psychological meaning and are not only statistical artifacts implies looking for the factors which could influence climate formation. However, more longitudinal research is required in order to understand the processes of climate formation and to ascertain the variables that actually play a relevant role in it. This research should examine the role of attitudinal variables (such as job satisfaction) which have frequently been considered only as outcomes of climate perceptions, since some theoretical models (Payne & Pugh, 1976) and the results of cross-sectional studies (James & Jones, 1980; James and Tetrick, 1986) suggest that the relationship between them and climate perceptions is reciprocal.

What, perhaps these findings suggest, is that researchers might have to re-orient their questioning in this area. Rather than trying to demonstrate simply what aspects of climate impact on what aspects of performance, or whether climate predicts performance, our aim should be to attempt to understand a little more under which organisational contexts climate impacts on performance i.e. (Lewin) or performance impacts upon climate i.e. (Schneider). Some evidence was found that suggests the relationship between organisational climate and performance could be interactional and
in either direction depending on the contextual features. Paraphrasing W. H. Auden (1907-73), to its members an organisation is not so much a place of work, but a whole climate of perceptions and opinions. Such an interactionist approach would appear compatible with the findings of this research.
Appendix A

Summary of Key Aspects of PWE Instrument (original)

Newman (1977)

Using Campbell's measure as a basis (Campbell and Beaty, 1971), Newman (1977) undertook to develop an instrument based on his conceptualisation of the work environment having six general facets: task, people, interpersonal relationships, organisational norms or standard operating procedures, physical setting, and opportunities-rewards-incentives. Therefore, items were written or adapted from other measures to ensure coverage of all facets. Because this revision and extension of Campbell's measure was considerable, the dimensions of perceived work environment actually assessed by the instrument were determined empirically (p. 522).

The instrument, designated the PWE Perceived Work Environment, instrument is designed to assess a person's perceptions of the work environment. These perceptions are, theoretically, non-evaluative. This is extremely important. Organisational members are required to tell what they see in their work environment. Objective descriptions of the work environment are being sought. Organisational members are not being asked to evaluate (good or bad) what they see in their work environment. "The PWE scales provide 11 measures of 11 empirically derived dimensions of perceived work environment. Reliability, validity and stability data based on five data collections involving 1200 employees in four organisations indicate that the PWE measure has quite satisfactory psychometric characteristics."

Newman (1975) in summarising his instrument development study commented:
Principal Components Analysis

The dimensions of perceived work environment assessed by the instrument were determined by principal components analysis of the work environment perceptions of all organisational members. The number of components retained was based on a plot of eigen-value against ordinal eigenvector number and the interpretability of the components.

Interpretability of the dimensions was aided by rotating the components to approximate simple structure using the varimax criterion. Items that loaded on several components or on none were eliminated, and the remaining items were component analysed and rotated again. This process resulted in 60 items defining 11 orthogonal components.

The 11 empirically-derived dimensions of perceived work environment and an item for each scale are:

Supervisory Style - the extent to which the supervisor is open, supportive, considerate.

Task Characteristics - the extent to which the jobs / tasks are characterised by variety, challenge, worthwhile accomplishment, etc.

Performance - Reward Relationships - The extent to which rewards such as promotions and salary increases are based on performance rather than on other considerations such as favouritism.

Co-worker Relations - The extent to which co-workers are trusting, supporting, friendly, co-operative.

Employee Work Motivation - The extent to which employees show concern for the quality of their work, try to get ahead, are involved in their work, etc.
Equipment and Arrangement of People and Equipment - The extent to which the equipment and the arrangement of people and equipment allow for efficient and effective work operations.

Employee Competence - The extent to which the employees have the proper background, training and "know-how" to do what is expected of them.

Decision Making Policy - The extent to which employees take part in decisions that affect their work situation.

Work Space - The extent to which employees have adequate work space and freedom to move about.

Pressure to Produce - The extent to which there are pressure to produce.

Job Responsibility / Importance - The extent to which employees see responsibility as part of their job and the work as necessary to the successful operation of the organisation.

Scale Analysis - Since the PWE principal components were quite "clean", the items that loaded high on the respective dimensions were construed as scale items and a scale analysis was done. Alpha coefficients are presented in the first column of Table 1. The results indicate acceptable levels of reliability (internal consistency) for all of the scales except job responsibility / importance. The latter scale was retained at this stage of developmental research, however, because of interest in it.

The attached table presents the intercorrelations of the scales as well as their means and standard deviations. the results indicate that the PWE dimensions had low to moderate intercorrelations (median r = 0.30; range
This level of intercorrelation does not detract from their usefulness (conceptually and empirically) as relatively discrete work environment dimensions. This is true particularly in light of the relatively manifest and interrelated nature of the work environment stimuli which the employee-respondent acts upon and is describing. In fact, this low to moderate range of intercorrelation provides an opportunity for a relatively sensitive diagnostic analysis of organised work environments.

**Substantive/Construct Validity of the PWE Measure** - Contributions to substantive validity were made by (a) striving to include a comprehensive set of important work environment facets, (b) using only items that had been rated descriptive (as opposed to evaluate), (c) affirming empirically a multidimensional interpretation of perceived work environments (the dimensions being very similar to what was anticipated), and (d) acceptable internal consistency reliability estimates for the principal component-derived scales.

(*pp. 523-524*)
### Appendix B

#### Six Dimensions and Thirty-One Item Numbers

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
<th>Item numbers (see questionnaire)</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisory style</td>
<td>The degree to which company management is open, supportive, considerate</td>
<td>1, 4, 6, 8, 13, 15, 17, 20, 24, 28, 30</td>
<td>11</td>
</tr>
<tr>
<td>Co-workers</td>
<td>The degree to which co-workers are trusting, supporting, friendly, co-operative.</td>
<td>7, 9, 12, 14</td>
<td>4</td>
</tr>
<tr>
<td>Work Motivation</td>
<td>The degree to which employees show concern for the quality of their work, try to get ahead, are involved in their work, etc.</td>
<td>3, 5, 22, 26, 31</td>
<td>5</td>
</tr>
<tr>
<td>Employee competence</td>
<td>The degree to which the employees have the proper background, training and &quot;know-how&quot; to do what is expected of them.</td>
<td>2, 11, 27, 29</td>
<td>4</td>
</tr>
<tr>
<td>Decision making</td>
<td>The degree to which management permits employees to take part in decisions that effect their work situation.</td>
<td>10, 19, 21, 23</td>
<td>4</td>
</tr>
<tr>
<td>Performance - rewards</td>
<td>The extent to which rewards such as promotions and salary increases are based on performance rather than on other considerations such as favouritism.</td>
<td>16, 18, 25</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** 31
Appendix C

QUESTIONNAIRE

I would like you to tell me what kind of place this company is to work in.
Please tell me how much each sentence describes the company by circling the best number below:-

<table>
<thead>
<tr>
<th>Item Numbers</th>
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<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<tbody>
<tr>
<td>1</td>
<td>My boss is flexible when needed</td>
<td>1 2 3 4 5</td>
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<tr>
<td>2</td>
<td>Employees receive enough training to do their job</td>
<td>1 2 3 4 5</td>
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<tr>
<td>3</td>
<td>Employees try hard to get ahead</td>
<td>1 2 3 4 5</td>
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<tr>
<td>4</td>
<td>Employees know what their boss expects of them</td>
<td>1 2 3 4 5</td>
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<tr>
<td>5</td>
<td>People are proud of their work</td>
<td>1 2 3 4 5</td>
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<tr>
<td>6</td>
<td>The boss takes personal interest in the employees</td>
<td>1 2 3 4 5</td>
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<tr>
<td>7</td>
<td>There is serious conflict among the employees</td>
<td>1 2 3 4 5</td>
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<tr>
<td>8</td>
<td>Individuals are able to count on their boss to back them up</td>
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<tr>
<td>9</td>
<td>Employees trust one another and offer to help one another</td>
<td>1 2 3 4 5</td>
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<tr>
<td>10</td>
<td>There is a chance to take part in deciding what the work methods, activities and goals are</td>
<td>1 2 3 4 5</td>
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<tr>
<td>11</td>
<td>Employees have the proper background and training to do the job</td>
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<tr>
<td>12</td>
<td>Employees get along well with each other and enjoy their work</td>
<td>1 2 3 4 5</td>
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<tr>
<td>13</td>
<td>The boss gives recognition for work well done</td>
<td>1 2 3 4 5</td>
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<tr>
<td>14</td>
<td>There is a friendly feeling among employees</td>
<td>1 2 3 4 5</td>
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<tr>
<td>15</td>
<td>Employees feel free to talk openly with their boss, especially when they have a problem</td>
<td>1 2 3 4 5</td>
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<td>16</td>
<td>Pay increases are related to how well I do on the job</td>
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<tr>
<td>17</td>
<td>Praise is given for doing a good job</td>
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<tr>
<td>18</td>
<td>Promotions are based on how well the job is done</td>
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<tr>
<td>19</td>
<td>Important decisions are made by the employees closest to the action</td>
<td>1 2 3 4 5</td>
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<tr>
<td>20</td>
<td>The best way to get along with your boss is to not &quot;rock the boat&quot;</td>
<td>1 2 3 4 5</td>
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<tr>
<td>21</td>
<td>Most employees take part in making the decisions that affect their jobs</td>
<td>1 2 3 4 5</td>
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<tr>
<td>22</td>
<td>Employees are interested and deeply involved in their work</td>
<td>1 2 3 4 5</td>
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<tr>
<td>23</td>
<td>Employee suggestions are asked for when making decisions that will affect them</td>
<td>1 2 3 4 5</td>
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<tr>
<td>24</td>
<td>The boss stresses good human relations among the employees</td>
<td>1 2 3 4 5</td>
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<td>25</td>
<td>Employees are rewarded on the basis of how well they do their work</td>
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<tr>
<td>26</td>
<td>Employees compete with each other for awards and recognition</td>
<td>1 2 3 4 5</td>
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<tr>
<td>27</td>
<td>The work requires a lot of technical training</td>
<td>1 2 3 4 5</td>
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<tr>
<td>28</td>
<td>Employees are given a good idea of what to expect</td>
<td>1 2 3 4 5</td>
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<tr>
<td>29</td>
<td>New employees have problems because they do not get enough training</td>
<td>1 2 3 4 5</td>
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<tr>
<td>30</td>
<td>Employees are able to speak openly and honestly with their boss</td>
<td>1 2 3 4 5</td>
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<tr>
<td>31</td>
<td>There is a chance for personal growth</td>
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</tbody>
</table>
Appendix D

Organisational Environment

Analysis of organisational strengths, weaknesses and culture, assessment of information systems provisions/organisations and management competences

Scanning of environment, including customers' requirements and technological developments (benchmarking)

Creation of a favourable climate for change and preparation for change projects

Business Strategies & Processes

Information & Infrastructure

Implementation

Appendix E

Schematic Layout of the 40 Companies who participated in the Climate Survey

10 Companies from Above Average Performance for Electronic Component Manufacturing Sector

10 Companies from Below Average Performance for Electronic Component Manufacturing Sector

Average Performance Level for chosen sector of manufacturing industry i.e. Electronic Component Manufacturing

Sunrise Industries (Above Overall UK Average Performance)

Above Sector Average

Below Sector Average

10 Companies from Above Average Performance for Hosiery & Knitwear Manufacturing Sector

10 Companies from Below Average Performance for Hosiery & Knitwear Manufacturing Sector

Average Performance Level for UK Industry

10 Companies from Below Average Performance for Hosiery & Knitwear Manufacturing Sector

Sunset Industries (Below Overall UK Average Performance)

Above Sector Average

Below Sector Average

Average Performance Level for chosen sector of manufacturing industry i.e. Hosiery & Knitwear Manufacturing

10 Companies from Below Average Performance for Hosiery & Knitwear Manufacturing Sector

291
Appendix F

Project Validation Interviews

I am grateful to John Lorriman MA (Cantab), C Eng, FIEE, for two in-depth interviews which took place at his office on the 5th and 26th November 1998, where the aims, findings and implications of this project were discussed. His insightful comments have helped me interpret some of the findings. The responsibility for this interpretation is, of course, mine.

John Lorriman is:
Managing Director, Ichiban Consultants - Coventry,
Director, Knowledge Associates - Cambridge,
Chairman of the newly formed Joint Continuing Professional Development Committee between the Institution of Electrical Engineers, the Institution of Mechanical Engineers and the Institution of Incorporated Engineers.

His book publications include:
‘Japan’s Winning Margins - Management Training and Education’, published in 1994 by Oxford University Press and co-authored with Professor Takashi Kenjo,


In 1997 his latest book ‘Continuing Professional Development - a practical approach’, was published by the Institution of Electrical Engineers - London.
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