THE UNIT GENERAL MANAGER

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Thesis Summary

The research follows two, related avenues of study. It seeks first to answer the question as to what are the requisite competencies of subsidiary unit general managers in a successful multibusiness group dealing in industrial goods and consumer durables. The role of the particular category of general manager is defined, primarily, in relation to a two dimensional model developed by Kotter (1982). The nature of the employing Group is defined in relation to another two dimensional model developed by Goold and Campbell (1987). Secondly, the study asks what are the relationships between outputs, skills and personality attributes in the unit general manager role following a model defined by Boyatzis (1982) after having first critically examined and updated Boyatzis' model by reference to the work of later contributors.

The researcher defines a competency model for the particular genre of general manager based on the literature. He then attempts to validate this model by reference to data related to outputs, skills and personality attributes which he has collected over a number of years in the context of a variety of action research projects, i.e. research undertaken for operational, rather than academic, purposes. With minor exceptions, the empirical data supports the hypothesised model. It also provides insight between which are threshold competencies, i.e. differentiating between poor and average performers and those which distinguish the superior performer as well as indications as to which competencies correlate most with overall performance indices.

The results give support to the existence of relationships between the three classes of variable examined but, as Boyatzis predicted, these relationships are rarely of a simple one-to-one variety between single variables. Analysis of the data suggests that measuring outputs, skills and personality attributes can add value to each other in accounting for variations in overall performance so that selectors would be advised to assess all three classes of variable.

Key Words

Management
Competency
Accountabilities
Skills
Personality

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Chapter 1

Introduction

PRIMARY FOCUS OF THE STUDY

This study seeks, first, to identify the requisite attributes of general managers in charge of subsidiary business units within a moderately successful group, Glynwed International plc, which manufactures and distributes industrial products and consumer durables.

The most frequently cited books on general management are the biographies, autobiographies and memoirs of great business leaders, eg. Alfred P. Sloan of General Motors (1963), Michael Edwardes of British Leyland (1983), Lee Iacocca of Chrysler (1985) and Victor Kiam of Remington (1986). Others have sought to discover themes from these and shorter accounts, eg. Bennis and Nanus (1985) and Garfield (1986). Occasionally a writer will recognise that there are sub-species of the genus general manager, eg. Kotter (1982). Occasionally others will go beyond the postulation of broad themes and attempt to quantify specific characteristics, eg. Cox and Cooper (1988). Despite these pointers, those whose job is to find effective general managers for modest-sized subsidiary businesses will discover that their quarry is not well targeted

The researcher aims to arrive at a hypothesised list of attributes, required for success in the target role, based on a review of current literature. He will then attempt to validate this model by reference to empirical data which he has gathered for management purposes over a period of 13 years. The value of this research is in arriving at a definitive specification for the unit managing director role in the business where the researcher is employed. Hopefully, by having derived the model from the literature it will be possible to generalise the results beyond the organisation which is the vehicle for the study.

SECONDARY FOCUS

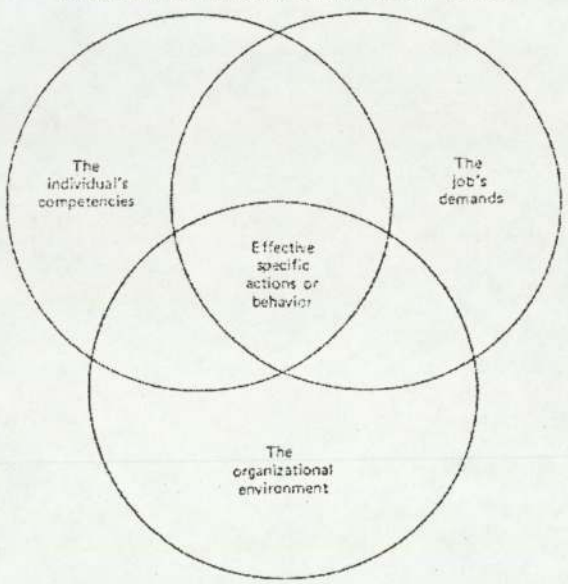
The secondary focus of the study is to explore the relationships between outputs of the unit general manager role on the one hand and input variables of different types; in particular displayed skills and personality attributes. The study will also look at relationships between these input variables.

The value of this second avenue of research is multi-faceted. At the most practical level, the recruiter/assessor needs to know what type of input variables are most likely to impact on future performance. At the time of writing there is controversy, in the field of fair employment practice, about the relationship of personality measures, sometimes referred to as psychometrics, to subsequent job performance (see, for example, Pickard, 1996). Similarly, the trainer would benefit from knowing more about the relationship between personality attributes, which are relatively impervious to change, and skills, which are more amenable to development. At a more fundamental level, it is hoped that this study might contribute to the body of literature exploring the relationship between personality attributes and behaviour (*ie*. in the current instance, skill displays and performance outputs).

STRUCTURE OF THE LITERATURE REVIEW

The structure of the literature review will be guided by a model proposed by Boyatzis (1982). The model postulates that effective job performance is the outcome of the [internal] organizational environment impacting on the job's demands which engages the individual's competencies which results in effective specific actions or behaviour. This is shown in Figure 1.1, below.

Figure 1.1
A Model of Effective Job Performance



Source: Boyatzis (1982:13)

The model will be examined critically during the course of the literature review but it has the merit that it appears to encapsulate the classes of variable which are the subject of this

study, *viz*. Effective Specific Actions or Behaviours being concerned with outputs and The Individual's Competencies with inputs.

The literature review will commence with a study of the demands on the general manager role. This will be followed by an examination of the attributes, or competencies, which derive from these demands. Finally, the review will seek an appropriate classification for Glynwed's organisational environment and the way in which this might moderate this list of requisite competencies in the current instance. Such a classification will also be helpful in suggesting the limits to which the findings of this thesis can be generalised.

Chapter 2

The Demands of Managerial Work

The explicit demands of any role are the *outputs* which this study will consider in a later chapter. The current chapter will look at more implicit demands of managerial work as a whole and those of a particular category of general manager of which the Glynwed unit managing director is an example. The demands of the generic manager as well as of the category will be considered for two reasons. First, the general manager role is archetypal in relation to the field of management. Secondly, there has been more written about the role of managers as a generality than about the category of general manager.

This section of the literature review will follow a, broadly, chronological approach

THE CLASSICAL PERSPECTIVE

Mintzberg (1973) gives a useful overview of the two earliest perspectives on managerial job demands. The first of these perspectives is the classical, functional school of which Mintzberg states 'The father of this school, Henri Fayol, [1916] introduced his five basic managerial functions-planning, organizing, co-ordinating, commanding, and controlling. His work received impetus in the 1930s from Luther Gulick [1937] who gave managers one of their early acronyms... POSDCORB'. The latter signifies the functions of Planning, Organizing, Staffing, Directing, Co-ordinating, Reporting, Budgeting. This functional approach has drawn heavy criticism from a variety of commentators, viz.:

'If we ask a managing director when he is coordinating, or how much coordinating he has been doing during a day he would not know and even a skilled observer would not know either. The same holds true of the concepts of planning, command, organization and control... ' (Carlson, 1951:24)

Hirsch and Bevan, (1988:12) criticise the classical models on the basis that they have been derived 'without hindrance of empirical work'.

THE DOMINANT DIMENSION PERSPECTIVE

The second early perspective reviewed by Mintzberg has involved the characterisation of managerial work by a single dominant dimension. He mentions the manager as a *Decision Maker* whether *rational,* as in traditional microeconomics, *unprogrammed* (the Carnegie theorists: Simon, March, Cyert) or *reactive* (Lindblom, 1968). He then discusses the

manager as a *Leader* commenting on the preoccupation of theorists with *styles* rather than *behaviours*.

A variant of the leadership school of thought is that of contingency theory. This is neatly summarised by Hirsch and Bevan:

For many writers (Tannenbaum and Schmidt, 1958; Fiedler, 1967; Campbell et al 1970), leadership is almost synonymous with successful management. They focus on leader behaviour and subordinate performance, and the extent to which the correct 'fit' between the former and the organisational environment impacts on the latter. (Hirsch and Bevan, 1988:12)

Hirsch and Bevan proceed to criticise the contingency theorists because, '...they make (often unvalidated) assumptions about what managers actually do.'

Mintzberg is most impressed by those writers who, 'have analysed the actual content of the manager's job by studying the *behavior* of the incumbents.' (emphasis added). He explains that his own (1973) study is informed by such writers, *viz.* Homans, (1950), Hodgson, Levinson and Zaleznik (1965) Stieglitz (1969, Wilkstrom (1967), Walker, Guest, and Turner (1956), the Ohio State Leadership Studies (e.g. Stogdill et al. 1956) and Sayles (1964).

Herriot is more critical of all uni-dimensional approaches having himself perceived the variety and complexity of managerial work. He comments:

'One reaction to this heterogeneity of tasks has been to characterise management as another concept, eg leadership or achievement. Then the theory and evidence derived from these two areas of research can be applied to management...Such approaches are essentially escape routes from the hard tasks of conducting job analyses on enough managerial jobs to determine how many distinctions we may need to make in the global concept of management' (Herriot, 1988: 83)

THE EMPIRICAL PERSPECTIVE

Herriot would, no doubt, be happier to lend support to a third perspective on management which Mintzberg terms *Work Activity Studies*:

'This last school of study on the managers' job stands at the other extreme from the classical school. This is the school of inductive research, in which the work activities of managers are analyzed systematically; conclusions are only drawn when they can be supported by the empirical evidence'. (Mintzberg, 1973:21)

Mintzberg is particularly impressed by two diary studies, Sune Carlson's (1951) study of nine Swedish Managing directors and Rosemary Stewart's (1967) study of 160 senior and middle managers in Britain.

Hirsch and Bevan comment:

'Both Carlson and Stewart analysed the content of 'diaries' kept by managers in order to assess how much time they devoted to other activities, the type of communication with which they were involved, the decisions they made and with whom they interacted.' (Hirsch and Bevan, 1988:13)

Mintzberg (1973) reports that Carlson discovered the chief executive job involved fragmentation; interruption and hectic pace; long hours; brevity; variety; reaction to what was definite, concrete and in their appointment diaries; limited use of letters as a means of communication; 10 percent of time on inspection tours; interaction with a wide variety of subordinates without much regard for hierarchy and acting as figurehead.

With regard to managers in general and on average, Stewart (1967) reported findings as summarised in Table 2.1 below.

Table 2.1
Summary of Stewart's Findings Concerning the Managers in General

-They spent 75 percent of their time in their own establishment which included 51 per cent in their own office

-They spent roughly equal thirds of their time alone, with one other person and with two or more others

-They spent 50 per cent of their time in discussions and 36 per cent on paperwork

-They had 13 diary entries per day, 12 fleeting contacts per day and 28 periods alone of at least half an hour during the four weeks of the study

: After Stewart (1967:Chapters 2-4)

With specific regard to general managers she comments:

'There are other jobs, such as that of general manager, whose holders are likely to spend little time alone. The fourteen general managers in the sample spent 28 per cent of their time alone compared with an average for the whole sample of 34 per cent'. (Stewart, 1967:35)

She explains that this difference was exacerbated in situations of rapid change and that contacts include customers, suppliers and trade/industry associations.

Stewart assigns most of the general managers in her sample to her Group 1, the *Emissaries* classification explaining, 'Then there are those general managers whose work often took

them away from their company, visiting important customers or taking part in professional or trade association activities'. (1967:79) Characteristics of the Emissaries are summarised in Table 2.2 below.

Table 2.2
Characteristics of the Emissaries

-They spend less time in their own establishments and their own offices and more travelling and at external locations

-They spend less time on paper work and more in discussion and, as indicated, in travel

-They have fewer diary entries per day, fewer fleeting contacts and marginally fewer sustained periods alone

After Stewart (1967:101, 104,105)

Stewart, herself, is aware of the shortcomings of the diary study and says:

'The main disadvantage of diaries is that they greatly limit both the scope and content of what can be studied. The scope is limited because the manager cannot devote too much time to the recording, and the content because it is difficult to get managers to record in the same way if the item being recorded allows much scope for differences in interpretation'. (Stewart, 1967:6)

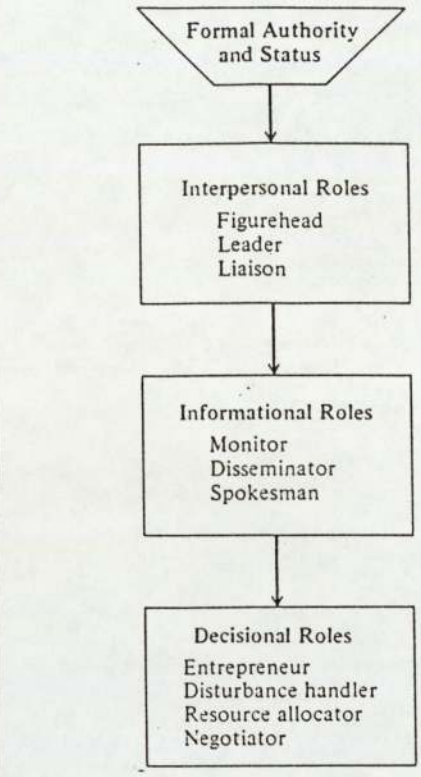
Mintzberg (1973) comments about diary studies generally that whilst they allow the drawing of useful conclusions on the *characteristics* of managerial work they reveal little by way of its *content*.

THE MINTZBERG STUDY

Hirsch and Bevan (1988) comment that Mintzberg's (1973) work has become 'seminal'. The central focus of Mintzberg's propositions was his own *observational* study of five chief executives which he published in 1968 although, as has already been pointed out, he drew on the work of a wide range of earlier writers, especially Carlson (1951) and Stewart (1967).

Mintzberg postulated ten interrelated managerial roles; 3 interpersonal, 3 informational and 4 decisional. These are reproduced, diagrammatically, from Mintzberg's (1973) publication in Figure 2.1 below.

Figure 2.1
The Manager's Roles



Source:Mintzberg (1973:59)

Appendix 2.1 gives a summary description of the ten managerial roles and the constituent activities which Mintzberg observed.

Mintzberg contends that these ten roles are generic to all managerial work. He explains that the *interpersonal* roles are based upon given authority/status and that these place the manager in a unique position to get *information* which, in turn, places the incumbent in a central point in the system by which strategic *decisions* are made. He comments that '...the roles are described individually but they cannot be isolated. As shown [in Figure 2.1] these ten roles form a *gestalt*-an integrated whole'.

Mintzberg proceeds to delineate 'The manager's basic purposes' which provides another angle on managerial job demands. These purposes are given in Table 2.3.

Table 2.3
The Manager's basic Purposes

1. Ensuring that the unit serves its basic purpose-the efficient production of specific goods and services
2. Designing and maintaining the stability of the unit's operations
3. Adapting the unit to its changing environment
4. Ensuring the unit serves the ends of those who control it
5. Serving as the key informational link between the unit and its environment
6. Operating the unit's status system

After Mintzberg (1973:94-96)

Mintzberg offers a contingency model to account for variations in managers' work. As he explains, 'The work of a particular manager at a particular point in time is determined by the influence that four "nested" sets of variables have on the basic role requirements and work characteristics.' These variables are the environment (both organisational and the wider milieu), the job (level and function), attributes of the incumbent and key short term issues. The organisational environment and the job are, of course, key factors in Boyatzis' (1982) model.

Finally, Mintzberg presents a series of *propositions* about variations in managers' work. Those that explain the basis of variation or have something to say about the general manager role are as in Table 2.4 below.

Table 2.4
Propositions Concerning the General Manager Role

1. The level of job and the function supervised appear to account for more of the variation in managers' work than any other variables.

2. The more dynamic his organization's environment (competition, rate of change, growth, pressure to produce) the more time the manager spends in informal communication, the more varied and fragmented his work, and the greater the orientation to live action and verbal media

3 The larger the overall organization the more time the top manager spends in formal communication...the less brief and fragmented his activities, the greater the range of his external contacts, the more developed his formal communication network..., the greater his involvement in external work...,the less his involvement with internal operations, and the less time he spends substituting for subordinates...

4. The higher the level of the manager in the hierarchy, the more unstructured, unspecialized, and long-range the job, the more complex, intertwined, and extended in time the issues handled, the less focused the work.

After Mintzberg (1973:129-130)
Reference numbering is that of the current author

It is the impression of the current author that the blend of scope and empiricism of Mintzberg's work eclipsed anything that had preceded it, albeit that his sample size of 5 was very modest. In particular his attempt to provide a dynamic model of the management process (see Figure 2.1) was a quantum leap in the approach to the study of management work. Hirsch and Bevan, however, perceive a flaw:

"However, one serious shortcoming (and one shared by the majority of research in this area) is that it is difficult to do anything other than infer performance criteria from such categories. When we ask the question, 'What do I need to be able to do to become an effective Resource Handler?', then the answers...are rarely clear cut in skill and behaviour terms." (Hirsch and Bevan, 1988:16)

It is an aim of this study to contribute to the filling of this gap.

THE GENERAL MANAGER

The review moves on to consider another major work, Kotter (1982) *The General Managers*. This will sharpen the focus on the specific category of executive which is the subject of the current study. It will also be seen how Kotter goes some way to overcoming Hirsch and Bevan's criticism of Mintzberg's contribution and suggests, at least in outline, the requisite attributes of the general manager.

Kotter's study was conducted between 1976 and 1981. It employed a variety of methods to look in depth at fifteen general managers from nine different corporations spread out across

the USA. The exact constitution of Kotter's enquiry is replicated as Appendix 2.2. After surveying the impact of post-war conditions on the general manager role he concludes:

'With respect to general-management jobs, these trends seem to have made most of these jobs extremely demanding, difficult, and complex in both an intellectual and interpersonal sense. These jobs today put a person in a position where he is held responsible for a complex system which he cannot directly control and cannot entirely understand. They demand that he identify problems and solutions in an environment where behavior-results linkages are unclear, that he can cope with the fact that thousands of diverse issues and problems could absorb his time and attention, that he balance the short and the long run despite pressures to ignore the latter, that he somehow motivate good performance and deal with bad performance on the part of large numbers of subordinates, that he keep a very diverse group of people working together harmoniously and effectively, and that he get a lot of other busy people over whom he has no formal authority always to cooperate with him'. (Kotter, 1982:10-11)

So Kotter isolates an *intellectual* dimension of the general manager role, which he identifies with job *responsibilities* and an *interpersonal* one which he associates with requisite *relationships*. He suggests that only general manager (GM) jobs contain all this task- and people-related diversity and that it is the very diversity that makes the job a *general* management one. He also claims that it is the diversity that makes the job particularly difficult.

Kotter explains that although all GM jobs shared the same basic demands, there is variation in terms of the intensity of these demands. He says, 'In general, it appears that at least two major factors help create these kinds of difference associated with GM jobs.' These are differences in the type of job and differences in context, such as will be described in a later chapter.

Kotter postulates seven different, commonly found types of GM jobs including the 'CEO in a functionally organized company. This is the "traditional" GM job'. This current study will focus on two of Kotter's GM job types:

Table 2.5
Focus of the Current Enquiry

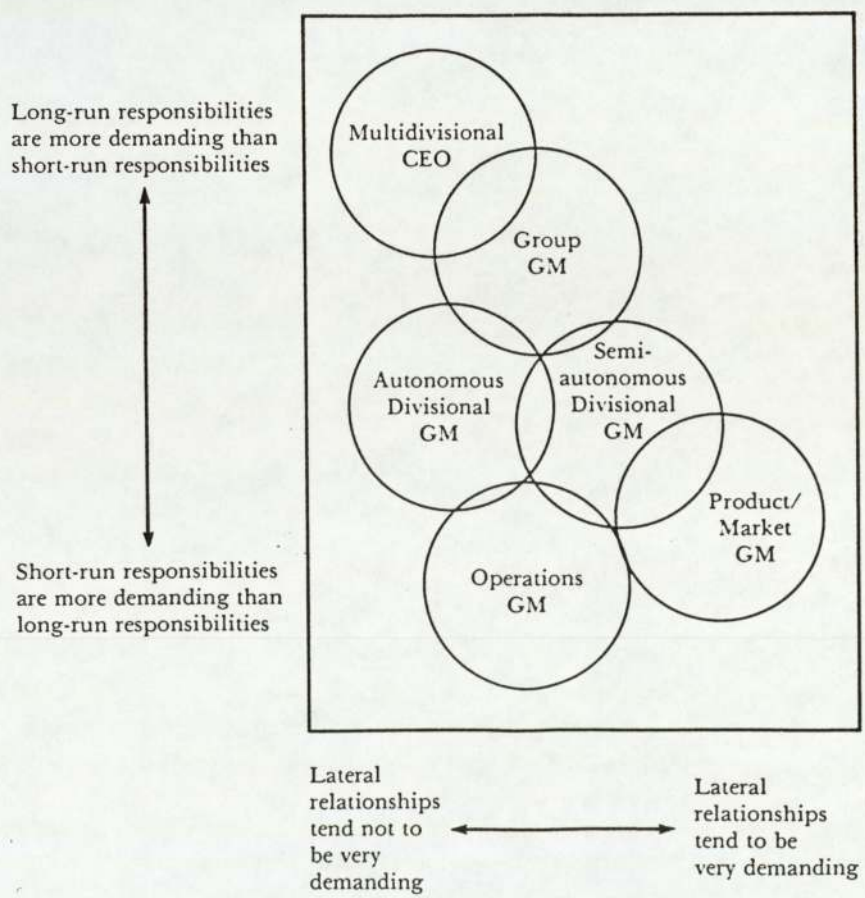
Autonomous division GM. This type of GM is in many ways like the traditional job, except that it reports to a GM not a chairman or board of directors...it tends to have fewer long-run responsibilities than a CEO, more short-run responsibilities, and fewer corporate external lateral relations. Often the key responsibility in this job is for profit.

Semiautonomous division GM: This GM job is like the last, except that it has fewer downward but more internal lateral relations (to corporate staff), it reports more closely upwards, and it tends to have slightly fewer responsibilities overall. For example, a typical semiautonomous division GM might have to report to a Group GM (who has several other divisions with related products/services/markets) and have to rely to some degree on corporate (or group-level) personnel, legal, accounting, public relations, and financial staff.

After Kotter (1982:23-24)

Kotter illustrates, diagrammatically the existence of six different GM variations within a single company:

Figure 2.2
Differences in Job Demands Among Six Types of GM Jobs in One Corporation



Source:Kotter (1982:26)

He explains that moving down the hierarchy in a very large corporation, GM jobs tend to be less demanding on long-run issues and more demanding on both short-run issues and lateral relations.

Kotter then turns to *how* the effective GM carries out the job. He says:

'All the GMs...approached their job in roughly the same way. During the initial period in the job they focused simultaneously on developing agendas for their businesses and on developing networks of resources needed to accomplish those agendas. When the agendas were largely in place, they devoted much of their attention to making sure that the networks actually did implement their agendas'. (Kotter, 1982:60)

He suggests that the reason why GMs behave in this way is to resolve two fundamental dilemmas. The first of these is to figure out 'what to do despite uncertainty, great diversity and an enormous quantity of potentially relevant information.' The second is to get 'things done through a large and diverse set of people despite having little direct control over most of them'. He explains that it is because of this complexity that 'one simply cannot go about the work of "planning, organizing, staffing, directing and controlling" in a simple, straightforward, and formal way that focuses on formal plans, the structure of subordinate roles and the like'.

Kotter then offers a model which suggests how the demands of the job and the requisite attributes of the GM predicate daily behavior:

Figure 2.3
Factors Influencing the Behaviour of GMs

Source Kotter (1982:93)

The issue of requisite attributes, or competencies, will be explored in the next chapter. In the meantime two observed distinctions of the current focus of enquiry, the autonomous

GM of a fairly small business unit, should be noted. Firstly, the autonomous divisional manager roles interact less with peers and outsiders than do those in product/market GM jobs. Second, GMs in small settings interact less frequently and less formally than do those in large ones. This observation should caution against overstressing the interpersonal/networking demands of the particular brand of GM discussed in this study.

Kotter's book was reviewed by Roberts (1984) who criticised it for failing to tie in its empirical observations with any theoretical perspective, eg. decision making strategies. Roberts is also sceptical regarding the usefulness of the book for its failing to identify ways and means of improving general manager performance in the short run, whilst grudgingly accepting that it would be possible to infer requisite job and personal characteristics. It is a key task of this current study to make these characteristics explicit. Furthermore, it is mainly Kotter's contribution which will be carried forward from this section of the literature review to inform the hypothesised model of unit general manager competencies in Chapter 5.

Chapter 3

The Structure and Nature of Management Competencies

THE BOYATZIS PERSPECTIVE

Before embarking upon an examination of what might constitute requisite competencies for a unit general manager it is necessary to define what is meant by the term 'competencies' because the construct itself is problematic. This Chapter will review the history of the concept, its forms, definitional boundaries and problems since Boyatzis first raised its profile in *The Competent Manager* in 1982.

Dulewicz (1989:56)) reports, 'The competency approach...was devised in the 1970's by the US company, McBer, to identify those personal characteristics which result in effective and/or superior performance in a job.' Boyatzis' book documents the McBer work. The Kepner Tregoe Journal (1983:18) explains that this work included a study for The American Management Association 'aimed at pinpointing exactly the characteristics of managerial stars.'

Boyatzis based his definition of competency on that of a colleague (Klemp, 1980) viz.: *"an underlying characteristic of a person which results in effective and/or superior performance in a job"*. He proceeded to explain the constituent parts of his definition as summarised in Table 3.1.

Table 3.1
Boyatzis' Definition of a Competency

'A job competency is *an underlying characteristic of a person* in that it may be a motive, trait, skill, aspect of one's self-image or social role, or a body of knowledge which he or she uses.'

'Because job competencies are *underlying characteristics*, they can be said to be generic. A generic characteristic may be apparent in many forms of behavior, or a wide variety of different actions.'

'The action, or specific behaviour, is the manifestation of a competency in the context of the demands and requirements of a specific job and particular organization environment.'

'Competencies are characteristics that are causally related to effective and/or superior performance in a job.'

'A threshold competency is a person's generic knowledge, motive, trait, self-image, social role, or skill which is essential to performing a job, but is not causally related to superior job performance.'

Source:Boyatzis (1982:21-23)

Boyatzis distinguished the *type* of competency (eg. Self-confidence, Proactivity) from its *level*. He said (1982:18) , 'This second dimension of the competency model was thought to have three basic levels: (1) the motive and trait level; (2) the self-image and social role level; and (3) the skill level.' The full exploration of levels (1) and (2) will be deferred until the work of Boyatzis' successors at McBer (Spencer and Spencer, 1993) is reviewed later in this chapter. However, it is important to the current study to note Boyatzis' assertion of 'dynamic interaction' between the levels:

'Motive and trait levels of competency will have the most direct impact on the self-image and social role levels of the competency. They will also have impact on the skill level of the competency through the impact on the self-image and social role levels.' (Boyatzis, 1982:36)

It is worth noting that Boyatzis does not offer proof of these assertions in his statistical appendix. All of the comparisons are with the different levels on the one hand and criterion data (eg performance, seniority) on the other. Furthermore his principal statistical device is the t-test of significant differences between criterion groups (eg Poor, Average and Superior performers). He does not seek to determine *how much* of the variation in performance, status, etc. is associated with the various competencies or levels. As has been stated, this thesis will examine the relationship *between* personal attributes and skills displayed.

Hogg et al. (1994) note a number of limitations in relation to Boyatzis' report on the McBer research. First a bias towards large organizations, next small sample sizes (eg at 'entry', 'middle' and 'executive' levels) then very small sub sample sizes (eg between poor, average and superior) and, finally, that findings within levels and functions are not segregated by sector so some differences due to level/function may have been obscured.

Boyatzis' comments concerning the definitional boundaries of what he calls skills are noted for future reference:

'Skill is the ability to demonstrate a system and sequence of behavior that are functionally related to attaining a performance goal. Using a skill is not a single action...it must result in something observable'. (Boyatzis, 1982:33)

'It is also important to distinguish skills from tasks, or functions, which are required in the job. A function such as organizing resources requires a person to use multiple skills to perform it effectively'. (Boyatzis, 1982:33)

Boyatzis assessed the degree of skill possessed via the thematic analysis of what he termed a Behavioral Event Interview (BEI). That is he asked managers to describe in detail what they had actually *done* in a number of situations.

THE CASE AGAINST COMPETENCIES

Herriot asserted that the best assessment devices replicated actual tasks involved in the job for which assessment was taking place. He criticised the competencies movement in general, and Boyatzis in particular, for seeking to evade the need for job analysis since this reveals 'a huge heterogeneity in tasks and behaviours.':

'As a consequence, there has been a major effort to reduce these job descriptions in terms of tasks to more general categories...Hence the overall inferential process has been the following: from tasks and behaviours to classes of task to personal attributes to classes of attribute. One might end up with a list like [that] (from Boyatzis, 1982)...We must consider certain objections and alternatives to the procedure we have just described. That procedure involved a very great deal of generalisation and inference...On what basis?' (Herriot, 1988:85)

Herriot seems to be questioning, at least indirectly, the validity of Boyatzis' assertions regarding the dynamic interaction between the levels of a competency.

INTRODUCING DULEWICZ'S WORK

Dulewicz (1989) wrote a useful article which, effectively, summarised the then current state of competency-based assessment as well as reporting some interesting findings from his own research. He commenced by pointing to distinctions between the concept of 'competency' as defined by Boyatzis and 'dimensions' which were, and are, a feature of assessment centres (ACs) the origin of which he traces to the British War Office Selection Board during World War II. Boyatzis' definition of competency has already been considered and Dulewicz goes on to remind us that the former's 1982 study, "does not provide enough information for the development or implementation of selection or promotion systems." Dulewicz says of 'dimensions' that they are:

'...clusters of behaviours that are specific, observable and verifiable...Nowadays these are usually identified by job analysis techniques such as critical incidents (as with competences [sic]), repertory grid or structured questionnaires.' (Dulewicz, 1989:56)

With regard to the assessment of these dimensions in ACs, Dulewicz regards situational exercises such as the in-tray as the focal point, but asserts that 'information from psychological tests, questionnaires and structured interviews are also widely used to provide as comprehensive a picture as possible.':

Indeed, ACs were designed and have been used primarily as a predictor of potential, *not* as a method for appraising current performance, and their record for doing this is far better than any other technique. The assessment dimensions in ACs have now been called 'competencies', although they are not usually directly related to Boyatzis' model.' (Dulewicz, 1989:56)

So the distinction between competencies and dimensions at this stage in the debate seems to be not so much one of substance as of temporal focus and means of measurement at the skill level. In the field of ACs three American names had achieved pre-eminence in the early 1980s, Douglas Bray for his longitudinal study (Bray and Howard, 1983) and Thornton and Byham (1982) who claimed to have been inspired by Bray in their attempt to write a definitive work on ACs. A summary of the key points of difference and similarity is given in Table 3.2

Table 3.2
Distinctions and Similarities Between Competencies and Dimensions

Aspect	*Competencies*	*Dimensions*
Derivation	Job analysis	Job analysis
Temporal focus	Present performance	Future potential
Usual means of assessment at skill level	Behavioural Event Interview	Assessment Centre
Key names	Boyatzis,1982	Thornton and Byham, 1982 Bray and Howard, 1983

After Dulewicz (1989:56)

Returning to Dulewicz (1989), he reports how he and a colleague arranged for the assessment of potential general mangers by their work supervisors against 40 specific competences derived from the literature and the author's own experience. Dulewicz reduced these competences to 12 'supra competences' by a process of factor analysis. He then grouped his 12 competences under four headings, *Intellectual, Interpersonal, Adaptability* and *Results-Orientation* and found considerable correspondence between these groupings and those of other published AC dimensions covering middle and senior managers. Dulewicz believed that these findings pointed to the existence of generic competences which may not be significantly influenced by managers' job demands.

This current author concludes that at a high level of abstraction it is inevitable that transcendent managerial competencies will be found. The question arises as to how far these higher level abstractions will account for variations in performance in a specific situation.

COMPETENCE IN THE UK: THE MCI MODEL

The McBer study in the USA (Boyatzis, 1982) and two reports on UK deficiencies in management development (Constable and McCormick, 1987; Handy, 1987) precipitated an interest in management competence which crystallised into the Training Agency's publication, *MCI Standards on Training* (1990). This was a consultative document which canvassed the opinions of organisations and focused not on superior performance but on 'what you might reasonably expect a good manager to be able to do'. Out of these consultations arose a structure of management standards (MCI, 1992a) in which the term *competence* occurs in the lower six of seven levels, viz.:

Table 3.3
Structure of MCI Management Standards

Key purpose	overall purpose of management
Key role	broad area of *competence*, eg Manage Operations
Unit of *competence*	aspect of management *competence*, eg. Maintain and improve service and product operations
Element of *competence*	detail of each unit of *competence*, eg. Maintain operations to meet quality standards
Performance criteria	performance required to demonstrate *competence* for each element
Range Indicators	circumstances in which *competence* needs to be demonstrated
Evidence required	sources and forms of evidence that may be used to demonstrate *competent* performance

After MCI (1992a:16-17)
(use of italics is by current author)

Despite the apparent similarity between MCI's term *competence* and Boyatzis' *competency* there are important differences between the two models. First, the MCI focus is clearly on effective, rather than superior, performance and so is likely to be associated more with the province of the 'threshold' competency as defined in Table 3.1, above. Secondly, the *Unit of Competence*, seems not to correspond with Boyatzis' definition of competency at all. Rather it seems to correspond to the arena of *Effective Action,* which follows the engagement of the requisite competencies (see Chapter 2). The MCI levels below the Unit of Competence stratum simply serve to define that construct. MCI (1992b) itself appears to recognise the distinction because their scheme also includes a generic *Personal Competence*

Model with four *Clusters of Personal Competence*, three of which look remarkably similar to Dulewicz's Intellectual, Interpersonal, and Results-Orientation headings. By 1995 the MCI were referring to Personal Competen*cies* for senior managers (MCI, 1995). Both the MCI (1992b) and Dulewicz's minimum headings look as though they might correspond to the *skills level* of Boyatzis' model, but neither were claiming to be based upon deeper *underlying characteristics*.

THE CONTINUING DEBATE

In January 1990 the UK's Association of Management Education and Development convened a conference entitled *The Photofit Manager:Building a Picture of Management in the 1990s* the proceedings of which were published in a book of the same name (Devine, 1990). In the introduction, Devine and Osbaldeston (1990) commented that 'In addition to technical and theoretical knowledge, it is now widely understood that competency includes skills, behaviours, values and even personality traits.'

Burgoyne joins the action

The conference included a highly original contribution from Burgoyne entitled *Doubts about competency*. The paper started with some thoughts about the definition of compet*ence* which, in fact, seem closer to Boyatzis' compet*encies*:

'competence can be defined as a manager's ability and willingness to perform a task' [it] ..is a broader concept than skill and can usually be thought of as encompassing knowledge, skill, understanding and will'. (Burgoyne, 1990:21)

Burgoyne went on to state that all managerial jobs were different at a detailed level of resolution and similar at a high level of abstraction. A comment which serves to explain Dulewicz's transcending 12 factors and 4 headings.

However, the originality of Burgoyne's contribution is best illustrated in the following comments included in Table 3.4.

Table 3.4
Burgoyne's Meta Competences

'Unlike non-managerial work, the nature of managing is to create and define its own task '

'Managers do not use tools one at a time from the tool bag of managerial competences. Listings of separate competences at best simply illuminate different forms of what is, at the end of the day, a complex whole'

'The fact that management...has to create and define its own task in which to be competent means that there cannot be prior objective criteria for its performance.'

'Managerial competences are best assessed by a process of grounded judgement (as opposed to 'objective measurement'), by those who own and who are affected by the managerial action in question.'

'There are two very different kinds of competence...The underpinning competences are of a 'basic literacy' both of a literal and metaphorical type. They certainly include literacy, numeracy and basic analytical decision-making skills...The second kind, overarching competences, are to do with being competent at learning, changing, adapting, forecasting, anticipating and creating change. These are the 'meta competences' which enable managers to create and adapt specific competences that underpin effective action in specific situations'.

After Burgoyne (1990:21-23)

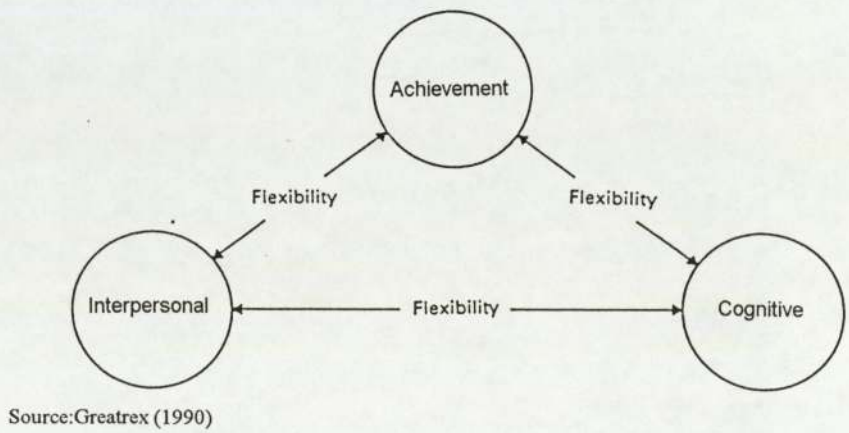
This concept of 'meta competences' is new. It is hinted at in Dulewicz's *Adaptability* heading but the latter does not seek to place this on a higher plane than the other three headings.

Burgoyne's contribution is making an important point about the the universality of management competences/cies and it underlines the necessity for researchers to define, very carefully, the boundaries of populations about which they are seeking to generalise.

At the same conference, Boydell reported on his 1986 research which postulated a list of seven managerial activities (eg. controlling processes and systems) which predicated seven modes of managing (eg. Adhering, Adapting) which, in turn bespoke seven personal qualities (eg. Stability, Control). The last of these constructs appears to span the levels of Boyatzis' competencies and the first two seem to fall around the interface of his *Job Demands* and *Effective Specific Actions*. Effective Specific Actions have yet to be discussed in this study.

Two other contributors offer useful insights regarding the structure of competences/cies. First of all O'Neill (1990), speaking of British Airways, distinguished between *surface* and *source* competences. He suggested that surface competences were behavioural and organisation-specific whilst source competences were inferential and assessable by psychological tests and interviews. He reported that British Airways' senior management source competences comprised *Intellectual Effectiveness, Relationships with Others* and *Work Approach*, the latter of which seems to correspond with Dulewicz's Results Orientation. Whilst Adaptability/Flexibility is not identified as a separate source competence the elements are to be found within Intellectual Effectiveness and Work Approach. Next, Greatrex (1990) reported on a study of managerial competences in BP where he discovered 'a mixture of concrete behaviours, sets of values and beliefs...'. He found a number of clusters which included *Achievement Motivation, Interpersonal Skills, Cognitive Skills* and *Flexibility* and also that 'assessors have tended to rate achievement motivation and cognitive skills higher than interpersonal sensitivity'. Greatrex postulated a model of competences which treated flexibility in a different manner to the other three clusters and to this extent seems to parallel Burgoyne (1990). His model is reproduced, with a typographical correction, in Figure 3.1.

Figure 3.1
The Pawnbroker Model of Competences



Source:Greatrex (1990)

Thus both O'Neill and Greatrex suggest generic lists of competences that approximate to Dulewicz's four headings.

The contributors to Boam and Sparrow's (1992) *Designing and Achieving Competency* broadly line up behind Boyatzis' concept of the multi-level competency; and, in fact, use the expression *competency* rather than *competence*. For instance, the authors quote Morgan

(1989) that, increasingly, the definition of managerial competence has broadened from the possession of specific skills to "the development of attitudes, values and 'mindsets' that allow managers to confront, understand and deal with a wide range of forces within and outside their organisations". Likewise, Woodruffe (1992) suggests that behind manifest behaviour that allows a person to behave competently 'must be both the ability and the desire to behave in that competent way'.

The contributors to *Designing and Achieving Competency* draw some useful boundaries around the concept of a managerial competency. For instance Woodruffe explains that competencies are the behaviours people need to display (eg. sensitivity) in order to do the job effectively and are not the job itself (eg staff management). 'The job itself consists of a set of deliverables, outputs or roles, each of which requires a number of individual competencies' Kandola and Pearn (1992) suggest that unlike competen*ces* used in vocational or training standards 'Management competencies...are much more likely to focus on the generic human attributes (incorporating skills, values and knowledge)'.

Smith and Robertson (1992) proceed to discuss the assessment of competencies at different levels drawing upon Wernimont and Campbell's (1968) distinction between using *samples* and *signs*. They refer to the 'analytical' approach, which searches for generic human qualities, as dealing in signs and the 'analogous' approach based on work sample exercises. They report that Hunter and Hunter (1984) obtained mean validity coefficients of 0.54 for work samples/performance criteria and 0.53 for ability tests/performance. This seems to answer some of Herriot's criticisms of competencies (see above). Another important issue is whether temperament tests add to the predictive validity of ability tests.

In the final chapter of *Developing and Achieving Competency*, Boam and Sparrow (1992) suggest four types of competency: *Emerging, Core, Transitional* and *Maturing* of which the Core competency is of particular relevance to this study. They suggest that core competencies '..are enduring competencies that will remain important tomorrow as they are today...reasoning and analytical ability are likely to be core competencies in most settings'. They add that 'Other core competencies may relate to the way the business is carried out in the particular industrial sector the organization is in.'

Dulewicz Updated

In 1992, Dulewicz reported further research on executives attending the Henley General Management Course. He confirmed hypothesised relationships between scores of a self-report personality inventory (*OPQ Concept 5*) and supervisor ratings of performance in relation to his 40 competences (see above):

'Of the 57 relationships hypothesized, 35 (62 per cent) were statistically significant at least at the 5 per cent level, and 16 (29 per cent) were highly significant, at the 1 per cent level or better.' (Dulewicz, 1992:3)

These findings gave support to Boyatzis' concept of competency levels and the construct validity of at least some of the Dulewicz' own competences.

In 1994, Dulewicz gave a further account on his work with the 40 competences and 12 Supra-competences. On this occasion he sought to validate his competences against criterion measures, viz.:

Five separate measures of managers' level of current responsibility were collected...a factor analysis...revealed that there are two totally independent measures of responsibility. The first...is based upon the combination of salary (.95), total remuneration (.94) and staff (.40); the second embraces revenue (.90) and capital expenditure (.85)'. (Dulewicz, 1994:25)

Dulewicz found that scores on the 12 Supra-Competences were correlated with the responsibility factors. The higher salary earners were rated higher on Oral Communication, Achievement-Motivation and Business Sense and lower on Analysis and Judgement. Those with higher total remuneration scored higher for Oral Communication and Business Sense. He carried out a multiple regression analysis on the performance ratings of the 40 competencies to see which of these were the best predictors of current salary. Most of the variance in salary could be explained by performance in just five competencies Oral Expression; Oral Presentation; Appraisal; Self-Management and Negotiation.

Woodruffe attempts to define

Woodruffe reviewed the competency literature to date and concluded, 'It is far from simple to get a clear idea of what a competency is.' (1993:63) He went on to comment, '...one long list of competencies might include behaviours (eg behaving with sensitivity), their presumed causes (eg emotional stability), and their consequences (eg good staff management)'. (1993:64)

In his search to pin down the elusive construct Woodruffe tells us that the dictionary gives the forms 'competence' and 'competency' as interchangeable but that it goes on to define a

competence(y) as an ability *to* do something or *for* a task. He proceeds to question how expressions like 'achievement drive', or 'awareness of others' or 'motivation' can also be regarded as competencies in the dictionary sense.

In the absence of generic distinctions he offers definitions based on current usage:

'There are then two uses of the word competence(y) as follows:

*First it can be used to refer to area of work or roles at which a person is competent...I propose to term these areas of **competence**

*Secondly, it is used to refer to the dimensions of behaviour that lie behind competent performance. This is the person-related sense for which I will reserve the word **competency**.' (Woodruffe, 1993:64)

Woodruffe proceeds to offer further comments regarding the defining qualities of competencies praising the MCI (1990) distinction between areas of competence and competencies. 'They have on the one hand the Standards and on the other hand the personal competencies.' He goes on to suggest that calling skills, knowledge and abilities of a *technical* nature competencies muddles the definition of a competency.

Woodruffe accepts that there are generic management competency dimensions and tells us that 'One such list was published by Thornton and Byham (1982)...' and that others presented in 1989 in *Personnel Management*...display 'much overlap which supports Dulewicz's (1989) belief in generic competencies'.

With regard to the Boyatzian concept of competency levels, Woodruffe states:

'It is important to remember that the personality measure is actually a self-report of *behaviour*, and only measures disposition inasmuch as the repetition of a particular kind of behaviour suggests that a person is disposed to behave in that way'. (Woodruffe, 1993:131) [Emphasis is that of the current author]

Because of this Woodruffe suggests that measures such as 16PF, OPQ and Gordon's can be logically, and probably statistically, related to the competency dimensions.

BOYATZIS UPDATED

In 1993 Spencer and Spencer attempted to update and summarise, ' 20 years of research using the McClelland/McBer job competence assessment (JCA) methodology.'

The authors delineated 'Five Types of Competency Characteristics' as reported in Table 3.5

Table 3.5
Spencer and Spencer's Types of Competency Characteristics

'1. *Motives.* The things a person constantly thinks about or wants that cause action.

2. *Traits.* Physical characteristics and consistent responses to situations...Emotional self-control and initiative are more complex "consistent responses to situations."

Motives and competencies (sic)are intrinsic *operant* or *self-starting* "master traits" that predict what people will do in their jobs, long term, without close supervision.

3. *Self-Concept.* A person's attitudes, values, or self-image.

A person's values are respondent or reactive motives that predict what he or she will do in the short term and in situations where others are in charge...People who *value* being "in management" but do not intrinsically like or spontaneously think about influencing others at the motive level often obtain management positions but then fail.

4. *Knowledge.* Information a person has in specific content areas.

Knowledge is a complex competency. Scores on knowledge tests often fail to predict work performance because they fail to measure knowledge and skills in the ways they are actually used on the job

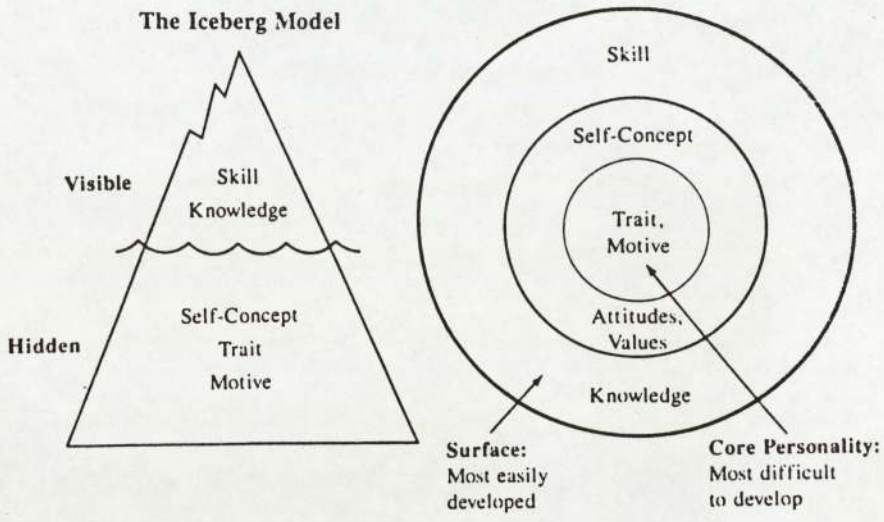
5. *Skill.* The ability to perform a certain physical or mental task.

Mental or cognitive skill competencies include analytic thinking...and conceptual thinking.

After Spencer & Spencer (1993:9-11)

The authors illustrate, in Figure 3.2, that knowledge and skill competencies tend to be visible, and relatively surface, characteristics whilst 'self-concept, trait and motive competencies are more hidden, "deeper," and central to personality.'

Figure 3.2
Central and Surface Competencies

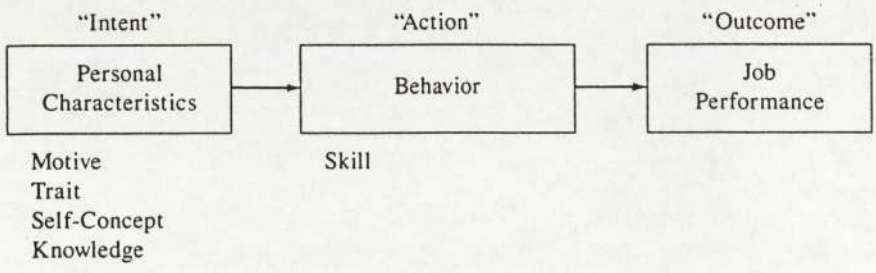


Source:Spencer and Spencer (1993:11)

Interestingly, Spencer and Spencer seem to have replaced Boyatzis' *levels* of competency with the term *types* of competency characteristics and the current author could find no explicit reference to Boyatzis' concept of *dynamic interaction* between the levels/types. This distinction is probably only one of emphasis since the authors go on to explain:

'Motive, trait and *self-concept* competencies predict skill behavior actions which in turn predict job performance outcomes, as in the motive/trait→behavior→outcome causal flow model shown in Figure [3.3]...knowledge and skill competencies invariably include a motive, trait, or self-concept competency, which provides the drive or "push" for the knowledge or skill to be used.' (Spencer and Spencer , 1993:12)

Figure 3.3
Competency Causal Flow Model



Source:Spencer and Spencer (1993:13)

The Spencers' distinction between operancy of motives and the respondency of self-concepts is potentially useful to the current research in the light of their grouping psychological tests according to the same criteria. They assign projective tests to the first category and questionnaires/inventory, the 16pf expressly, to the respondent category.

A FINAL PERSPECTIVE

In 1994, Weightman published *Competencies in Action*. She told us that "...we have used the term 'competence' in relation to the 'outcomes' approach and the term 'competency' with reference to the 'input' approach." She based this comment on Reid et al. (1992) and proceeded to assert:

'One of the main issues in discussing competency is about whether the analysis is over *inputs* or *outputs*...the elements which go to producing the appropriate performance ...or the appropriate performance [itself]. An input approach concentrates on what characteristics distinguish a superior performance...so to develop a generalised list...a higher order list of inputs...is reasonable'. (Weightman, 1994:60)

An interesting idea suggested by Weightman is that, '..for a more complex job with unpredictable aspects in the future, perhaps the personal qualities associated with inputs may prove more useful'. It seems to hint that with complex jobs the more generic levels of competence (i.e. below the skill level in Boyatzis' taxonomy) may be more predictive of performance. As has already been discussed in Chapter 2, Kotter (1982) regards the general manager role as the most complex.

SUMMARY AND CONCLUSIONS

As suggested at the start of this chapter, it is necessary to clear up some of the definitional boundaries of the term competencies and delineate the consensus view of what the construct implies. A summary of what different authors have called competences and competencies is given in Table 3.6

Table 3.6 Differing Usage of the Terms Competences and Competencies		
Author	*Competences*	*Competencies*
Boyatzis (1982)		generic knowledge, motive, trait, self-image, social role or skill differentiating superior performance
Dulewicz (1989)	Intellectual, Interpersonal, Adaptability, Results Orientation	
MCI (1992a) and (1995)	What a reasonably good manager does	Personal Competencies
Burgoyne (1990)	Encompasses knowledge, skill, understanding and will	
O'Neill (1990)	*Surface competences:* behavioural, organisation-specific *Source competences:* Inferential, eg. Intellectual Effectiveness, Relationships with Others	
Kandola and Pearn (1992)		Generic human attributes incorporating skills, values and knowledge
Woodruffe (1993)	Areas of work at which a person is competent	Dimensions of behaviour which lie behind competent performance
Spencer and Spencer (1993)		Motives, traits, self-concepts, knowledge, skill
Weightman (1994) based on Reid et al. (1992)	Outcomes	Inputs

Weightman's (1994) distinction between input and output competencies strikes the best balance between precision and economy so, like her, this author will use 'competence' in relation to the 'outcomes' approach and 'competency' for the 'input' approach. In terms of this distinction, the MCI Management Standards are competen*ces* whilst, for example, Boyatzis' competen*cies*, MCI Personal Competen*cies* and Dulewicz's Competen*ces* are all competen*cies*. In the current study due regard will be given to output competences when the concept of Effective Specific Actions is reviewed in Chapter 6.

The term competency, as now proposed, includes both displays of skill and personal attributes. Boyatzis (1982) and the Spencers (1993) suggest three layers of competency:

skills, respondent attributes and operant traits/motives with the former stressing links from the operant via the respondent to the skill display. A multi-layered model, along similar lines will be explored in this study.

Dulewicz (1989) claims that his 12 supra competencies are generic to management roles as are, by implication, the four headings under which he has grouped them. Others use similar groupings so the current author will use these four generic headings as framework for first building and then testing a model of requisite competencies for the Glynwed subsidiary unit general manager in later chapters.

Chapter 4

The Impact and Types of Organisation Context

It will be recalled that Boyatzis' (1982) model of Effective Job Performance (see Figure 1.1, above) postulated interaction between Job Demands, Individual Competencies and Organisational Environment.

The literature review to date has examined job demands and individual competencies. If Boyatzis' model is accepted, the next task is to search for a model or models capable of defining a multi-business organisation such as Glynwed.

As a precursor to this task, the review will examine whether other evidence exists to support Boyatzis' hypothesised connection between organisation context and individual competencies.

WHAT IS ORGANISATIONAL CONTEXT AND DOES IT IMPACT ON REQUISITE INDIVIDUAL COMPETENCIES?

Boyatzis makes it clear that his model is concerned with the *internal* organisational environment. However, this begs the question as to whether the internal environment is a random variable or, itself, influenced by other causes. Common-sense suggests the likelihood that there are factors in the wider, external environment which shape the internal context.

Leavy and Wilson examine the impact of external context. Their work is of particular interest to the current study since they explore the competing influences of organisational strategy, external environment and the repertory of personal competencies contributed by newly appointed chief executives.

The authors hypothesize:

'...the contributions of the leaders profiled were clearly related to the historical challenges facing their organisations during their tenures at the top. They were truly *tenants of time and context...* (113) Five contextual factors appear to have had the most influence on the shaping of strategy *...technology, ...industry structure, ...international trading environment; ...national public policy;* and *social and cultural transformation'* (Leavy and Wilson, 1994:141)

After presenting their, largely non-statistical, data Leavy and Wilson assert, 'Our data support the view that isolating context from the analysis would give a very inaccurate view of leaders and the process of leadership.' (p175) They proceed to argue, 'The industry environment is clearly not an unfailing determinant of organisation strategy ...there is still scope for autonomous action.. - but only so far.' (p176) They continue 'Leaders do seem to be very variable in their capacities to perform these historic tasks, and even in their abilities to recognise the true nature and full potential of their historic challenges and opportunities (p184). Leavy and Wilson conclude that, 'Leadership...is not just about having the right attributes or generic skills. It is also about the art of leading with a keen sense of current context and historic opportunity'. (p185) 'The strategies and development of all the sample organisations appear never at any stage wholly pre-determined by managerial action nor external events'. (p187)

The Leavy and Wilson study supports the assertions of Boyatzis (1982) in that it predicates effective managerial behaviour partially on the basis of organisational context. It differs from Boyatzis's work in that it focuses on one particular type of managerial action, i.e. strategy formulation, in relation to one particular class of manager, the chief executive. It also differs in choosing to emphasise the external context whereas Boyatzis features the internal organisational context as modulating the external. The studies are not in contradiction. Rather, Leavy and Wilson have concentrated on a particular instance of Boyatzis's generic model of managerial performance.

Sparrow (1995) recognised a strong relationship between internal context and individual competencies. He concluded that whilst there are generic individual competences and competencies, there are something which he calls *Core Competences*. These '...indicate what makes an organisation more successful than others, representing fixed sources of competitive advantage.' He goes on to say, 'Individual employee behaviour has to be analysed in the context of these organisation competencies. Why? Because management skills are increasingly organisation specific.' The fact that both generic and specific competences/competencies exist is well made.

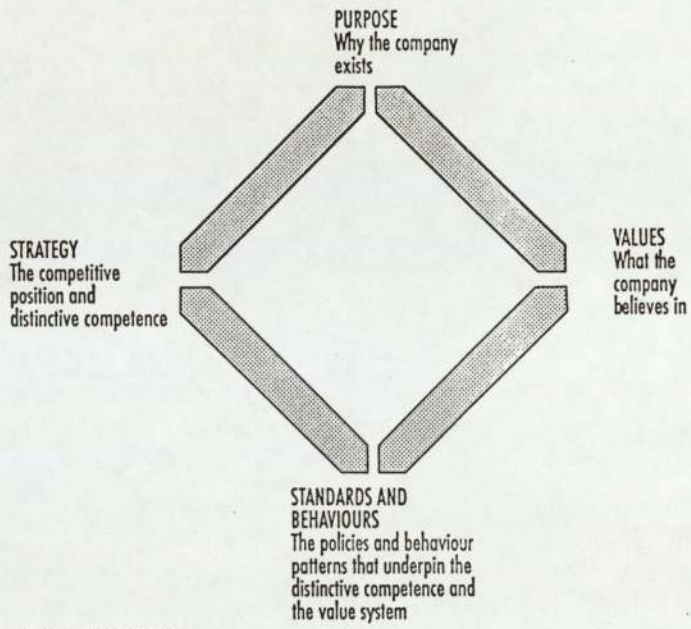
CHARACTERISATION OF ORGANISATIONS

Having established a link between the organisational environment and requisite managerial competencies it becomes necessary to investigate models which might help identify the

salient characteristics of the particular organisation under review. In setting out to achieve this task it is probably helpful to differentiate between strategic characteristics on the one hand and cultural on the other. It has already been noted how Boyatzis (1982:12) differentiates the two classes of variable, viz.: 'The organization ... also has a direction. This may take the form of a mission, purpose, or corporate strategy ... It also has a tradition and a culture ...these factors contribute to the internal organisational environment.'

Campbell, Devine and Young (1990) elaborate upon Boyatzis's strategic/cultural distinction in their study *A Sense of Mission*. The authors crystallised their model in Figure 4.1 below.

Figure 4.1
The Ashridge Mission Model



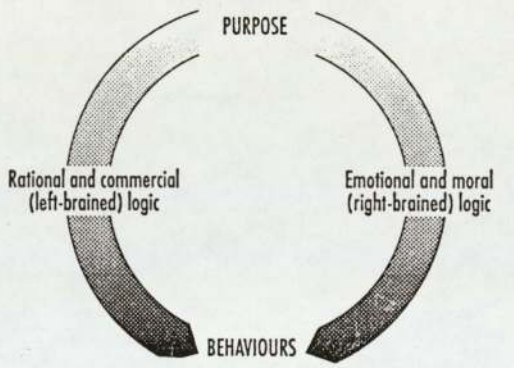
Source Campbell et al (1990:26)

This model suggests that mission exists when strategy and culture are mutually supportive of each other and of the Purpose.

Looking closer at the concept of strategy, Campbell et al. suggest that this defines the business in which the company is going to compete, the position it is intended to hold and the distinctive competence or competitive advantage. Whilst strategy is concerned with what the business is, culture is about the business philosophy and the norms and values on which it is based. Values are beliefs and moral principles which create meaning and corporate values are most powerful when they resonate with those of individual

participants. Rendered more succinctly, strategy is a matter for the mind; culture for the heart. Campbell et al. suggest that the most effective organisations will appeal to the different logic of both as in Figure 4.2 below.

Figure 4.2
Two Reasons for Action



Source Campbell et al (1990:32)

This appears to be arguing in the same direction as Boyatzis (1982). Strategy and culture constitute the internal organisational environment which predicates job demands which, in turn, engage individual competencies. Behaviour, as defined by Campbell et al. occurs somewhere around the interface of job demands and competency displays.

The task is now to discover or develop a model which will help define the Glynwed organisation in terms of its corporate strategic and cultural characteristics.

STRATEGY MODELS

Most of the recent strategy models are unhelpful in defining a diverse multi-business group such as Glynwed since their elements/taxonomies presuppose a unitary type of organisation. For instance, Porter (1980) centres his model on the concept of an *industry*. Likewise, Kay's (1993) ideas are premised upon the *distinctive capabilities* of a business of which there are very few which transcend diverse multi-divisional organisations. Hamel and Prahalad (1994) feature the concept of *core competencies* as the key ability in *Competing*

for the Future. It soon becomes apparent that Hamel and Prahalad are not so much thinking of managerial as technical competencies which are bound to be diffuse in a diversified group of companies.

CULTURAL MODELS

The problem of finding models which transcend the cultural diversity of multi-business organisations is less acute than that which existed in respect of the strategic dimension.

The first cultural model reviewed is that of Harrison.

Harrison first seeks to define his base concept thus '...the term "organizational ideologies" is the best name I can apply to the systems of thought that are central determinants of character of organizations'. (1972:19) He continues, 'I shall present a conceptual framework [which] postulates four organization ideologies: (1) power orientation; (2) role orientation; (3) task orientation; and (4) person orientation.' These are summarised in Table 4.1 below.

Table 4.1
Harrison's Organization Ideologies

Power orientation
An organization that is power-oriented tries to dominate its environment and vanquish all opposition... Some modern conglomerates project images of power ideology. They buy and sell organizations as commodities

Role orientation
An organization that is role oriented aspires to be as rational and orderly as possible. Predictability of behaviour is high... and stability and respectability are often valued as much as competence.

Task orientation
In the organization that is task-oriented, achievement of a superordinate goal is the highest value...There is no ideological commitment to authority, respectability and order as such

Person orientation
...the person-oriented organization exists primarily to serve the needs of its members... the organizations, hopefully, are conducted to make enough money to survive and provide their members with a reasonable living as well as an pportunity to do meaningful and enjoyable work with congenial people.

After Harrison (1972:121-123)

Harrison explains that:

'An organizational ideology tends to be internally viable when the people within the system want and need the prescribed incentives and satisfactions that reward good performance. It tends to be externally viable when the organization it embodies is a microcosm of the external environment and rewards the same skills, values and motivations.' (Harrison, 1972:123)

The writer warns that, 'For most organizations, however, there is no perfect fit with any of the four ideologies...' and also, 'Trying to mix ideologies may also prevent each type from producing the advantages that are unique to it'. (1972:126)

Harrison's model was espoused by Handy (1976) and popularised in his book *Understanding Organisations*. The model, however, is clearly of the deductive variety, although it is well supplied with supporting examples. Harrison, himself, suggests the need 'to develop a common language and a set of norms...' Throughout the 1970s the model appears to have been accepted uncritically by a number of writers, eg. 'a most enlightening description of organization cultures' (Lannon, 1977); 'Handy's work developing Harrison...has been most illuminating' (Brian, 1979) and also Anderson (1973), Bowers et al.(1975) and Donaldson (1979).

In 1982 Deal and Kennedy published *Corporate Cultures: The Rites and Rituals of Corporate Life*. The authors report that culture is 'the way we do things around here' (Bower 1966). It is what gives meaning and purpose to everyday lives. It is a system of informal rules that spells out how to behave which enables people to feel better about what they do and so work harder. The authors believe that the best companies, in the long haul, are those who believe in something. However, as will be seen, Kotter and Heskett (1992) would argue that at best a strong culture is a necessary, but insufficient, factor in the success equation.

Deal and Kennedy suggest that culture is initially shaped in the business environment which produces shared values which in turn are sustained by cultural heroes, rites, rituals and the cultural network. They postulate four generic culture models based on four different combinations of two factors, the degree of risk and the speed of feedback in the market place.

Contemporary with Deal and Kennedy, Peters and Waterman (1982) published the all-time business best-seller *In Search of Excellence*. The book outlines the strategies of 43 US companies which met stringent long-term success criteria. The authors explain that these 'excellent' companies, 'create environments in which people can blossom, develop self-esteem, and otherwise be excited participants in the business and society as a whole'. They postulate eight basic principles displayed by the excellent companies, viz.: *a bias for action,*

close to the customer, autonomy and entrepreneurship, productivity through people, hands-on value driven, stick to the knitting, simple form lean staff, simultaneously loose-tight properties.

Whilst praised as a codification of common sense, *In Search of Excellence* is not without its critics. London (1983) reminds us that the data in the book are entirely anecdotal and comments that the authors should have paid some attention to whether the same principles might have been displayed by non-excellent companies and that 'The principles have substantial face validity, but they must be evaluated and translated into meaningful guidelines.' Van de Ven (1983) states that 'The data presented to develop and support the eight characteristics would, by most scientific standards, not be admissible evidence of valid knowledge..' Also, a decade after publication, surprisingly few of the excellent organisations were continuing to prosper.

Kotter and Heskett (1992) present an interesting analysis of Corporate Culture and Performance which counters Peters and Waterman's unquestioning espousal of cultural universals. They posit three theories grounded on analysis:

Table 4.2
Kotter and Heskett's Culture Theories

Theory I:there is a positive correlation between strength of corporate culture and long-term performance but it is not very strong

Theory II:culture is only good if it fits its context in terms of either conditions in the appropriate sector, industry or segment or in terms of the firm's business strategy.

Theory III:only cultures which help organisations anticipate/adapt to environmental change will associate with long-term superior performance.

After Kotter and Heskett (1992:15-57)

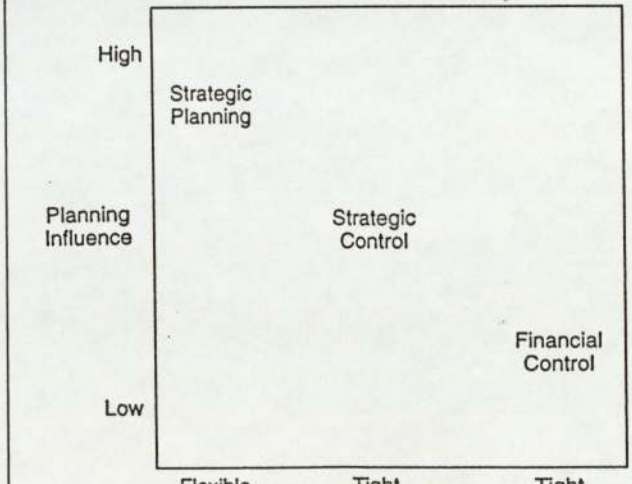
To exemplify Theory II, the authors cite the example of a commodity clothing manufacturer. The firm's strategy was good basic products at low cost. Its culture emphasised discipline, quality, manufacturing/engineering strength, conservative financial policies and an obsessive attitude to controlling inventories. Theory II and its emphasis on strategy/culture 'fit' seems to have arrived at a similar conclusion to that of the Ashridge Mission Model (Campbell et al., 1990) as discussed earlier.

With regard to Theory III, Kotter and Heskett found that the 'engine of change' which was emphasised always included *Action* but otherwise varied amongst *Leadership, Risk-Taking, Entrepreneurship, Innovation* or *Flexibility.* These broad abstractions could, potentially, define a multi-business organisation.

A COMBINED STRATEGY/CULTURAL MODEL

A model which appears to have strong relevance to the current study is that featured in Goold and Campbell (1987) and Goold, Campbell and Alexander (1994). This model postulates a link between business context on the one hand and strategy and culture on the other. Its interest lies in its focus on multi-business organisations. Goold and Campbell (1987) suggest a continuum of corporate parenting styles along the vector of two dimensions, *planning* influence and *control* influence. The model is illustrated, diagrammatically, in Figure 4.3 below.

Figure 4.3
Parenting Styles



Source:Goold et al. (1994:412)

The corporate parenting styles concern the emphasis in the relationships between the corporate management of the group and the constituent business units. Exemplars of the three styles are BP for Strategic Planning; ICI for Strategic Control and GEC for Financial Control.

The nature of the businesses that fit best with the three styles are given in Figure 4.4 below.

Figure 4.4
Businesses that Fit Best with Different Styles

	Nature of Decisions	Nature of Portfolio Linkages	Nature of Competitive Environment	Nature of Strategy
Strategic Planning	Big, risky, long term	Many/complex	Open or fierce	"Build"
Strategic Control	← "Middle Ground" →			
Financial Control	Small, incremental, short term	Few/simple	Stable	"Harvest" or turnaround

Source:Goold et al. (1994:422)

The characteristics of the three styles are given in Appendix 4.1.

Goold and Campbell's parenting styles model is not without its critics and most of the criticism seems to centre on the Strategic Control Style. In a review of the 1987 book, Smith (1989) challenges the authors' contention that the Strategic Control Style has 'yielded real benefits for its proponents' citing the cases of Plessey which under-performed and the Imperial group where the company which acquired it sold off the component parts for more than was paid in the first instance. Notwithstanding this specific criticism, the reviewer comments, 'Unlike *In Search of Excellence*, this is an extremely comprehensive review...there is less dependence on broad generalities and more concentration on specifics' and, 'They identify the tensions associated with each style and point out that there is no single best way. This is a point which is glossed over in books such as *In Search of Excellence*.'

Goold and Campbell's (1987) work is potentially the most valuable of all those reviewed in this chapter because Glynwed is a multibusiness organisation. Their model includes two fairly definitive indicators of parenting style which will be used to identify the likely style of Glynwed in Chapter 5. The first test is the degree of trading linkages between the constituent businesses; high for a Strategic Planning organisation and low for a Financial Control Group. The second test is the limit of divisional or unit capital expenditure authority. Strategic Planning groups ranged from £250,000 to £15m or 0.05-0.19% of assets, Strategic Control £250,000-£5m or 0.08-0.12% and Financial Control £5,000-£50,000 or 0.01%.

Chapter 5

Unit General Manager Competencies

This chapter attempts the task of synthesising a hypothetical competency profile for the target role. The first stage will be to examine models which postulate competencies applicable to the whole spectrum of managerial jobs. The next step will be to focus on the defining competencies of the general manager role. Finally, the impact of the distinctive climate which characterises the Glynwed organisation, from where the empirical data was gathered, will be considered.

GENERIC MODELS OF MANAGEMENT COMPETENCY

The review will consider three generic models of management competency. First of all that of Boyatzis (1982) because that model was the first to associate itself with the definition of *competency* which has been selected for use in this study. Next, is a model proposed by Byham (1990) which is the lineal descendant from the mainstream *dimensions* movement. Finally, Dulewicz's (1989) model will be considered because it reflects British practice and the Glynwed data relate primarily to UK general managers. In each case, only the author's minimum list headings will be reviewed, leaving relevant amplification until later in the chapter.

Boyatzis (1982) proposed a four cluster model of management competencies as in Table 5.1 below.

Table 5.1
Boyatzis' Management Clusters

Human Resources Management
Leadership
Goal and Action Management
Directing Subordinates

After Kepner-Tregoe (1983:18)

The skills incorporated by each specific competency are given in Appendix 5.1.

It was seen in Chapter 3 that Spencer and Spencer (1993) built on Boyatzis' work at McBer. Their minimum list model extended to non-managerial occupations. However, their empirically derived generic managerial model is replicated in Table 5.2 below.

Table 5.2
Spencer and Spencer's
Generic Competency Model for Managers

Competency	*Weight*
Impact and Influence	5
Achievement Orientation	5
Teamwork and Cooperation	4
Analytical Thinking	4
Initiative	4
Developing Others	3
Self-confidence	2
Directiveness/Assertiveness	2
Information Seeking	2
Team Leadership	2
Conceptual Thinking	2
Base [Threshold] Requirements	
Organisational Awareness	
Relationship Building	
Expertise/Specialised Knowledge	

After Spencer and Spencer (1993:201)

As indicated in Chapter 3, Byham (Thornton and Byham, 1982) made a leading contribution to the assessment centres movement with his dimensions. In 1982 (revised 1987) and 1990 Byham postulated a hierarchy of generic *Dimensions of Managerial Competence* based on '...hundreds of additional job analyses involving more than 100,000 people at all organizational levels.' (1990:2). The full (1990) list is reproduced as Appendix 5.2 and Byham's minimum list headings, which he calls *Classes of dimension*, are given in Table 5.3 below.

Table 5.3
Byham's Classes of Dimension

Leadership/Influence
Planning and Organising
Decision Making
Performance Management
Communication
Personal
Motivational Fit
[Technical] Knowledge/Skill
Fitness for Work

After Byham (1990:18-20)

As reported in Chapter 3, Dulewicz (1989) explained how he reduced his original 40 competences to 12 supra-competences and he then grouped the latter under four headings as in Table 5.4 below.

Table 5.4
Dulewicz's Minimum List Headings

Intellectual
Interpersonal
Resilience & Adaptability
Results-orientation

After Dulewicz (1989:56-59)

Dulewicz's (1994) list of supra-competences and the competences which load on to them are given as Appendices 5.3 and 5.4 respectively.

Boyatzis' four management competency clusters, the Spencers' generic managerial competencies and Byham's classes of dimension, with the exception of [Technical] Knowledge/Skill, can all, more or less, be subsumed under Dulewicz's minimum list taxonomy. In the work which follows relevant competencies will, therefore, be listed under Dulewicz's headings.

COMPETENCIES OF GENERAL MANAGERS

A search of the literature revealed five taxonomies which have some bearing on the general manager job, although not all explicitly address that role.

As usual, Boyatzis' (1982) contribution will be considered first. The nearest Boyatzis gets to the target is the category *Executive Level Managers* which is simply the highest of the three categories in his total population. The Spencers (1993) lump *Executives and General Managers* together. Kotter's (1982) suggestions for requisite *Basic Personality* attributes of general managers were replicated in Figure 2.3. The constructs which Kotter includes in his model contain some (eg. Unusual ability...) which are rather less scientifically designated than those of the other authors reviewed to date. There are also some blinding glimpses of the obvious, like 'above average intelligence'.

Cox and Cooper (1988) published a study of *Chief Executives/Managing Directors* of 45 companies employing over 1000 people and with a successful financial record selected at random from the Kompass Index in the UK. The survey involved an interview and a number of questionnaires, the latter including the 16PF which features in the current study. Cox and Cooper's sample differs from the subject of this study in that the general managers appear to head-up stand-alone businesses, ie. not subsidiary units.

Just as Byham had the longest catalogue of minimum list headings, his 1990 monograph detailed 36 dimensions claimed to be applicable to *Executive*, as opposed to middle manager etc., appointments. The similarity of Byham's dimensions to Dulewicz's 40 competences suggests that the former author may have stopped his abstracting at the supra-competency or secondary level rather than continue the process until he arrived at the four, or so, group headings.

A summary of the five executive/general manager competency taxonomies is included as Appendix 5.5.

The author has attempted to elicit the common competencies from this document. The method was to give pre-eminence to Cox and Cooper's and Kotter's taxonomies since these specifically address the general manager role. A competency which appears in either of these lists is included in the table below if it also appears in one of the other four lists:

Table 5.5
Unit General Manager Competencies

Intellectual Abilities

Analysis (Cox and Cooper; Byham)
Broad interests (Kotter; Byham)

Interpersonal Abilities

Tendency to be authoritarian (Cox and Cooper; Kotter)
Good at developing relationships* (Kotter; Spencers)

Resilience & Adaptability

Integrity (Cox and Cooper; Byham)
Self-reliance/confidence (Kotter; Byham; Boyatzis)
Emotionally even (Kotter; Byham)

Results Orientation

Achievement (Cox and Cooper; Spencers)
Energy (Cox and Cooper; Byham)
Initiative (Kotter; Byham)

* As the study is dealing with subsidiary GMs, according to Kotter's logic [fairly] good at developing relationships would probably suffice

Table 5.5 is, thus, predicated upon the generic role of autonomous/semi-autonomous unit general manager. It now remains to consider the moderating influence of Glynwed's particular type of organisational environment.

THE IMPACT OF CORPORATE PARENTING STYLE

It will be recalled that Chapter 4 (pp 46-7) concluded with a model by Goold and Campbell (1987) for classifying multi-business organisations according to parenting style and that two indicators were offered to facilitate the task of classification. The first test is the degree of overlap between divisions/units. Inter-divisional trading in Glynwed during 1994 accounted for only £4.1m of total divisional sales of £1003.1m (ie 0.4%). The second test was based on the limit of divisional authority for capital expenditure. The Glynwed divisional limit is £50,000 or 0.02% of assets. Thus by both of the harder criteria Glynwed is likely to be a Financial Control company. An analysis of wider criteria (see Appendix 4.1) by the author and the Glynwed Planning Manager indicated that the distinction is less clear cut. For example Glynwed has a comprehensive strategic review process. However, the presiding reality is that when 'push comes to shove' the demand for year-by-year unit results prevails.

Goold and Campbell do not postulate the requisite competency emphasis of the different parenting styles. However they do present clues which enable reasonable inferences to be made as summarised in Table 5.6 below.

Table 5.6
Statements suggesting requisite competencies in Financial Control companies

Frequent monitoring and review of performance against budget
Strong pressure immediately applied to businesses with performance problems
Budget improvements are expected every year
Centre insists on action plans to correct variances
Little time is allowed for finding new strategies
Highly committed managers due to feelings of ownership and a 'winners' psychology
Business autonomy
Financial objectives predominate
Tight controls
Fierce controls may rule out risky options

After Goold and Campbell (1987:151:162)

The implicit competency emphases in these statements are Control, Results Orientation and Bias for Action rather than penchant for reflection. Of Dulewicz's four minimum list headings the Results Orientation is likely to predominate.

A COMPETENCY MODEL FOR THE SUBSIDIARY UNIT GENERAL MANAGER IN A GROUP EXHIBITING THE *FINANCIAL CONTROL* PARENTING STYLE

A hypothesised competency model for the target role can now be finalised. The generic model presented in Table 5.5 will be modified by adding in the competencies of Control and Bias for action to the Results Orientation cluster. This augmented cluster will then be given pre-eminence over the other three groups as in Table 5.7 below.

Table 5.7
Hypothesised Subsidiary General Manager Competencies in Financial Control Organisations

Results Orientation
Achievement
Energy
Initiative
Control
Bias for action
Intellectual Abilities
Analysis
Broad interests
Interpersonal Abilities
Directiveness
Fairly good at developing relationships
Resilience & Adaptability
Integrity
Self-reliance/confidence
Emotionally even

The term *directiveness* has been substituted for the tendency to be authoritarian, inferred from Cox and Cooper (1988) and liking for power, mentioned in Kotter (1982).

This model will be tested empirically in the chapters which follow.

Chapter 6

Methodology

This chapter will consider the organisation in which the empirical data were gathered, the role of the author in that organisation, the structure and nature of the data collected and the methods by which the data will be analysed.

THE ORGANISATION: GLYNWED INTERNATIONAL PLC

The name Glynwed is a neologism deriving from the original constituent businesses of the Group, *Glyn* Brothers-makers of lead piping and long since defunct and *Wed*nesbury Tube-producers of copper tube. The Group was formed in 1939. In 1981, at the beginning of the period during which the author collected data, it consisted of 35 autonomous/semi-autonomous business units grouped into 11 divisions with a total of 16,074 employees, £368m sales and £19.2m profit. Figures peaked in 1989 with sales of £1125m and pre-tax profit of £93.3m. In 1995, at the end of the period under review, there were 43 businesses in 6 divisions. Only 14 businesses had been in group ownership for the entire period. Total employees in 1995 were 12,216.

Glynwed heartland business is primary metals and plastic pipe systems for the engineering and construction sectors together with some well known, metal-based kitchen product brands including Aga-Rayburn, Flavel and Leisure.

The Group is modestly successful in terms of the whole spectrum of UK manufacturing and a performance leader in its own sectors. Peak achievements from the period under review were achieving 10th position in UK profitability ranking (*Management Today*, October 1991) and being voted second most admired company in the UK Engineering and Extractives Sector (Management Today, *Britain's Most Admired Companies*, 1994). Of the nine constituent ranking scales in the latter survey, Glynwed was voted No.1 for Use of Corporate Assets and No.2 for Quality of Management.

THE ROLE OF THE AUTHOR IN GLYNWED

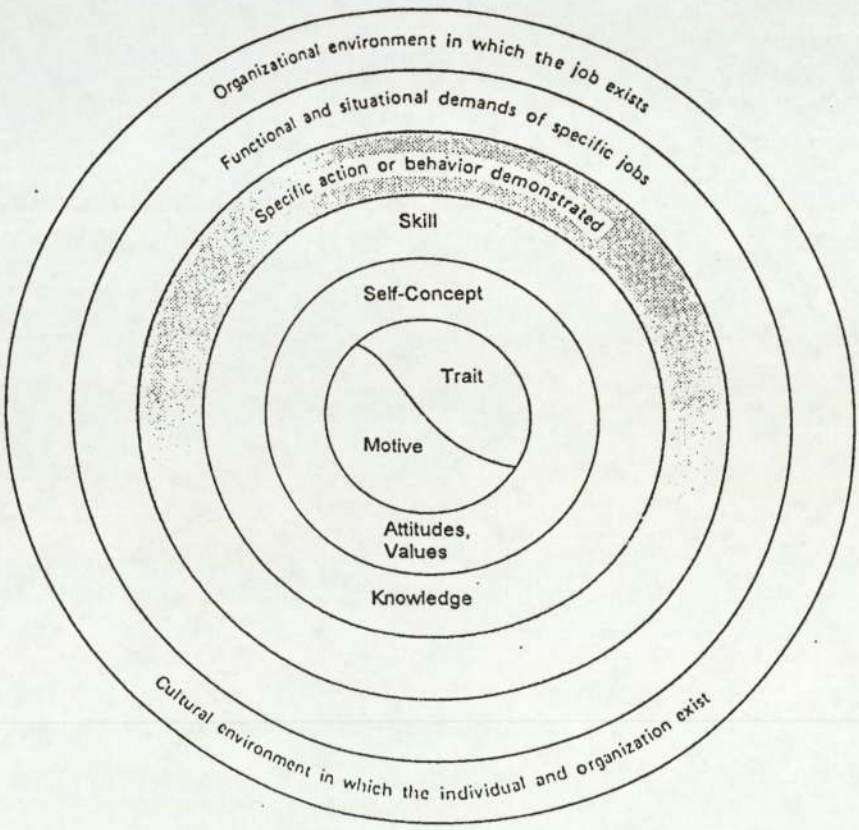
The author has enjoyed the same job title, Group Staff Manager, and essentially the same role since 1981. The task has been to improve the quality of business unit management teams, and those who supervise them, by a combination of improved selection and

management development processes. These tasks have been discharged in an iterative manner, ie. apply good basic practice, collect input and output data, analyse the data, improve the practice, collect better data, etc., etc. Dealing with a fairly small, select population (circa 200) the author has maintained his involvement in the practice/delivery of the services as well as with strategic and design issues.

THE STRUCTURE AND NATURE OF THE DATA

For all of the period under review the author has been more or less aware of an underlying structure consisting of at least three layers of phenomena in managerial work, ie outputs, skills and personality attributes. For most of the period he has been aware of Boyatzis' (1982) more refined and comprehensive Dynamic Interaction Model, subsequently updated by Spencer and Spencer (1993). This is shown in Figure 6.1 below.

Figure 6.1
Dynamic Interaction Model



After Boyatzis (1982:35) and Spencer and Spencer (1993:11)

In the course of fulfilling his role in the manner described, the author has gathered data relating to three of the adjacent inner circles in the Boyatzis/Spencer model. In overview,

the data relating to Specific Action or Behaviour Demonstrated (ie. what constitutes effective performance or the outputs) is represented by ratings of accountabilities/key results areas, obtained in the course of annual appraisal, and a number of overall effectiveness measures, including overall ratings from annual appraisal. Skill data is mainly in the form of supervisory ratings and also, in regard to interpersonal skills, data from observations by trained analysts. Self-Concept data is mainly from the 16PF Questionnaire and Values from another questionnaire source. More detailed descriptions of the data sets follows.

Measures of Effectiveness: 1. Accountabilities

In 1986 the author collaborated with Hay Management Consultants in the evaluation of all business unit director jobs for salary administration purposes. The starting point of the exercise was to ask all incumbents to describe their jobs in terms of Purpose, Accountabilities, Context, Key Issues and Organisational & Quantitative Data. The Job Purpose section was to be 'an accurate, concise and undetailed statement of the reason why your job exists within the organisation' (Hay Management Consultants, 1986:2) and the model Purpose Statement for the managing director of a manufacturing business as provided by Hay was:

'To plan, organise and control the total resources of the business to achieve or exceed annual profit targets while developing the business to profitably exploit longer term commercial opportunities' (Hay Management Consultants, 1986:2)

Job Accountabilities were to be 'brief, concise statements of key end results required from your job in order to fulfil its PURPOSE. They should be statements of key end results that are timeless unless your job is significantly changed. They are statements of expected areas of action and results, not component activities.' (1986:3) Rather than ask the job holders to find their own form of words, the consultants supplied lists of model accountabilities from which starting point the person writing the job description could add, subtract, amend or refine. The model supplied to holders of unit managing director jobs is reproduced as Appendix 6.1

In 1988 it was decided to use job accountabilities as the criteria for conducting annual appraisal. Each appraiser was supplied with a set of job descriptions for the appointments under his/her direct control and asked to conduct the appraisal against the four to six accountabilities which (s)he considered most important to the purpose of the job in question. After listing the performance evidence against the chosen accountabilities, the

appraiser made a judgement as to whether that evidence reflected *Superior* or *Satisfactory* performance or that labelled *Improvement Required*. The judgements against the 4-6 accountabilities were then aggregated into an *Overall Appraisal Rating* (OAR) of performance in the job. Some of the appraisers felt that the epithet *Satisfactory* damned the concept of fully acceptable performance with feint praise and so persuaded their colleagues to allow the interpolation of the term *Good* between Satisfactory and Superior performance. In the view of this author, the distinction between Good and Satisfactory performance is insufficiently clear, so that, when coding the ratings for this study these will be regarded as equivalent grades.

For the following year, the author analysed the accountabilities which appraisers had used in order to identify those which occurred most frequently across the Group. These common appraisal criteria were then pre-printed onto appraisal forms with a different list for each of the standard unit director roles (eg. managing, sales/marketing, works and finance). Appraisers could add further accountabilities but could not subtract any of the common ones. The pre-printed accountabilities were listed in order of the frequency with which they were first discovered, but no attempt was made at weighting.

Appraisal was conducted in the format described above for three consecutive years. At the end of this period, the author carried out a multiple regression analysis to discover the extent to which each of the accountability judgements loaded onto the OAR, and therefore its relative importance, to guide appraisers. The list of standard accountabilities so derived, and the order of loading on the OAR, was as follows:

Table 6.1
Unit Managing Directors
Standard Appraisal Criteria

Short Term Results (RES)

1. Develop, gain approval and implement annual plans for [ ]% ROCE, and/or [ ] operating profit and/or [ ] cashflow

Control (CTL)

2. Ensure development/operation of financial and management information in line with needs for internal control and Group reporting

Team Leadership (TM)

3. Develop, organise and motivate a competent management team

Business Development (DEV)

4. Develop products/processes/market outlets for future profitability/growth

Contacts (CTC)

5. Develop/maintain contacts with key suppliers, customers, trade contacts and relevant Group personnel to manage threats/exploit opportunities

Measures of Effectiveness: 2. Measures of Overall Job Performance

Whilst this thesis will postulate key accountabilities as the primary dependent variable it will also include a selection of overall performance measures. It is intended to use these measures for two reasons. Firstly, for purely practical purposes in that the data base includes more cases of overall performance ratings than of accountability ratings. This will be helpful in some instances where otherwise it would be necessary to cross tabulate a limited number of independent variable cases with the maximum 44 sets of accountability ratings to give a fairly small sample. The second reason is to test a hypothesis, hinted at by Weightman (1994) and discussed in Chapter 3 of the current study, that for complex jobs like general manager the possession of generic competencies might be more predictive of long term/overall effectiveness than of proficiency in relation to specific accountabilities. In other words, correlation coefficients between, say, psychometric results and overall performance measures might be greater than the mean correlation coefficient between psychometric results and the accountability ratings.

(a) A Rating of Overall Effectiveness (OER)

The first measure of overall performance was obtained as the dependent variable against which requisite competencies were identified at the skill level, as will be reported later in this chapter. In the manner described on p63, higher level managing directors were asked to rate up to nine general managers on a scale of 1 (Low) to 5 (High). Whilst the raters were of the same status as those who conducted annual appraisals, in only 12 out of 76 cases did the same person rate the same subject in both instances. Furthermore, there were differences in the contexts in which they were asked to make the two assessments. For instance, there were no operational implications for the OERs whilst the annual OAR is an input to the year end salary review. There were 76 OERs, which include ratings of the same person by more than one rater as is shown in Table 6.2 below.

Table 6.2
Incidence of Multiple OERs

No of Raters	*No of Cases*
1	48
2	11
3	2

The distribution of the ratings is 1=10; 2=12; 3=22; 4=16; 5=16.

These multiple ratings will inflate the number of cases in descriptive statistics and cross tabulations on which they legitimately impact.

(b) Average of Last 5 Years Appraisals (FIVE)

This analysis was undertaken in an attempt to achieve a more stable criterion variable for research purposes. It sought to establish the value which most appropriately summarised the most recent five years' annual appraisal ratings (or less in a few cases where a full set of OARs was not available). In cases where the employee had been in post for several years, and the OAR varied up and down over the five year period, a simple mean was taken. However, in other cases where the rating had been constant for the most recent two or more years then that value was used. Since some of the appraisal histories included ratings from the pre-1988 format when, effectively, a three point OAR scale was in use, the more recent OARs of 4 and 5 and those of 1 and 2 were each merged into ratings of 3 and 1 respectively. An OAR of 3 became 2 on the three-point scale. The middle value in both the three and five point scales represented fully acceptable performance. Irrespective of the

OAR record, if an employee had been promoted from his/her unit general manager role to a higher general manager appointment then a value of three was recorded. Similarly, the value recorded in the case of a manager dismissed for poor performance/conduct was 1.

There are 78 records in the five year analysis and the distribution on the three point scale is 1=27; 2=29; 3=22. In statistical tables the 5 year Appraisal score will be labelled FIVE.

(c) Highest Job Size Attained (JBSZ)

As indicated, senior management jobs in Glynwed are evaluated using the Hay method, which sizes work roles in terms of Hay Job Units. Job evaluation is regularly updated, frequently with the involvement of the Hay consultants and that firm would regard the Glynwed evaluations in total as exhibiting a one-to-one correspondence with their own standards.

As a further criterion measure, the highest job size recorded for an individual on appointment to, or following occupancy of, a unit general manager role has been included. However, more highly evaluated staff positions occupied *prior* to appointment as a general manager have been excluded. In this way highest job size attained (JBSZ) has been used as a index of career progression. Since job size is the overwhelming determinant of basic salary in the Glynwed Group, this is also an important reflector of how much the organisation really values the employee's contribution or potential to contribute. Over the last 10 years, promotions to jobs of higher Hay units have been subject to verification by parties outside of the current job environment who are, therefore, uninvolved in the annual appraisal process.

For the purpose of this analysis job sizes were first ranked in order of Hay units and the lower and upper quartile values identified. The values falling between these two percentiles were then classified as 2 with those above upper quartile as 3 and below lower quartile as 1. The distribution of cases is as follows:

Table 6.3
Distribution of Job Sizes

Hay Units	*Class*	*Cases*
<1040	1	17
1040/1372	2	48
>1372	3	18

(d) An Overall Index of Success as a Unit General Manager (IOS)

As a final measure of overall performance for this study, it was decided to construct an overall *Index of Success* (IOS) as a general manager by averaging *at least* two of the other overall indices reported above. (ie. The OARs, the OERs, the FIVE score and the JBSZ Index). In order to achieve this, some of the OAR and OER categories were further combined to produce three point scales (1+2=1; 3=2; 4+5=3). The distribution of IOS scores is <2=39 cases; 2/2.9=44 cases; 3=10 cases. Thus the distribution is negatively skewed. Because it is part based on OERs, the number of IOS cases is inflated.

Measures of Competency at the Skill Level: 1. Supervisory Ratings

The author's attempts to gather supervisory ratings of skill competencies were motivated by the need to identify requisite dimensions for measurement by work sample exercises and other devices in assessment centres (ACs). Further details of the managing director AC were reported in McCredie and Shackleton (1994). The author made his first attempt to identify competencies at the skill level by empirical means as early as 1984 using a *Repertory Grid* approach outlined by Honey (1979). Respondents were sub divisional managing directors with oversight of up to 6 business units. The approach proved unsatisfactory because the constructs which were surfaced lacked the necessary precision to allow any generalisations to be made across the Glynwed group. Because of this, the author initiated a second attempt which used an identical method, described below, except that the participants were supplied with given constructs derived from a standard list.

In his search for more generic universal competency constructs, the author used a list of 16 commonly used 'Problem-Solving Dimensions' given by Wellin (1984) and based on a much longer list published by Development Dimensions International (1975). Wellin's definitions/examples are reproduced as Appendix 6.2. The author selected one construct from the definition or examples given under each of the 16 Dimensions on the assumption that this was the facet most readily observable by those who would be participating in the exercise. Definitions of the selected constructs are given in Table 6.4 below:

Table 6.4
The Glynwed Skill-Level Competency Definitions

Glynwed Competency Definition	*Dimension from which it was derived*
1. Considering facts from a number of sources before coming to a conclusion	ANALYSIS
2. Wanting to know the detailed aspects of any issue	DETAIL
3. Sitting on the fence or deferring decisions unnecessarily	DECISIVENESS (Reversed)
4. Giving clear reasons for making decisions	JUDGEMENT
5. Incorporating other people's ideas/suggestions into his/her work	FLEXIBILITY
6. Putting forward ideas, suggestions and proposals for tackling an issue	INITIATIVE
7. Taking a calculated gamble to achieve an objective	RISK-TAKING
8. Giving in when opposition or difficulties appear	STRESS TOLERANCE (Reversed)
9. Achieving objectives within the agreed time scale	TENACITY
10. Listening and taking account of the others' point of view	LISTENING
11. Getting positive responses from others	PERSUASIVENESS
12. Developing unity and purpose in a group	LEADERSHIP
13. Involving colleagues and subordinates when making decisions	DELEGATION
14. 'Getting things done' and meeting deadlines	PLANNING/ORGANISING
15. Knowing if something in his/her operation was going wrong and be doing something about it	MANAGEMENT CONTROL
16. Producing written work in a language or style suited to the occasion	WRITTEN COMMUNICATION

The definitions of competencies 3 and 8 were deliberately expressed in a negative form in relation to the dimension from which they were derived. This was intended as a device to break a positive response set during the subsequent exercise.

As indicated, the next stages closely paralleled those in Honey's Repertory Grid exercise. First the author sought participation by senior managing directors (ie Divisional Chief Executives [pre 1993], Divisional Managing Directors [post 1993] and Sub Divisional Managing Directors). These respondents were general managers in charge of subsidiary unit general managers.

The respondents were told that the subject of the study was the Glynwed Unit General Manager and they were each asked to identify up to nine such general managers, of varying effectiveness, with whose performance they were familiar. They were given a set of blank cards and asked to write the names of each of the subject general managers, in repertory grid terms the *elements*, on each of the cards and then list them alphabetically by surname in the boxes at the top of three grid sheets reproduced as Appendix 6.3.

It will be noted that the competency definitions given in Table 6.4 above are reproduced in the grid forms in a particular manner. The left hand column of the grid is prefaced by the phrase 'The person most likely to...' then follows the competency definition. Likewise, the right hand column is prefaced by the statement 'The person least likely to...'. An extract from a specimen grid sheet is given as Figure 6.2.

Figure 6.2
Specimen Grid Sheet

COLUMN A	COLUMN B									COLUMN C
RATING 1 DESCRIPTION	1	2	3	4	5	6	7	8	9	RATING 5 DESCRIPTION
The person most likely to	Forman	Midax	Sellers	Covell	Plusse	Hepfrey	Evans	Masters	Forster	The person least likely to .....
... consider facts from a number of sources before coming to a conclusion	2	1	4	5	4	1	5	2	3	... consider facts from a number of sources before coming to a conclusion
... want to know the detailed aspects of any issue	1	2	3	4	2	2	5	4	1	... want to know the detailed aspects of any issue

The next stage of the exercise reverted to standard repertory grid procedure and required the respondent to shuffle and then spread out the cards. He (all respondents were male) was asked to select the subject whose performance most closely corresponded to the left hand column description and record a rating of 1 for that person in the appropriate box for that competency in the middle of the form. He was then asked to pick out the person who most closely corresponded to the right hand description and give a rating of 5. The remaining cards were then arranged between those of the two polar cases and allocated ratings of between 1 and 5 (inclusive) and the ratings were recorded. This sequence was repeated for each of the 16 competency dimensions. Finally, the respondent was asked to sort the subjects, against the criterion of overall effectiveness as a unit general manager, and the ratings, between 1 and 5, were recorded in the line at the bottom of the grid sheets. To

allow subsequent comparison with other measures, the ratings were finally reversed so that 1 equated with low skill in the competency and 5 with high skill.

Measures of Competency at the Skill Level: 2. Observations of Interactive Behaviours

The interactive behavioural data was a by-product from a series of five day in-house courses in *Management Meetings & Negotiating Skills* held between 1986 and 1990. The series was attended by a total of 232 Glynwed directors and senior executives. During each course, trained behaviour analysts collected a total of four and a half hours data on each participant in a range of four-person discussions. The discussion topics were similar across all courses in the series, *viz.* an open discussion on the desirable features of a graduate development scheme, an analytical case study and several meetings involved in the preparation and planning for both commercial and collective bargaining negotiation exercises but not the negotiations themselves.

The behavioural categories, which allowed the classification of all exhibited behaviours, were given as *General Interaction Categories* in a restricted publication (Rackham, 1978). Their definitions are reproduced as Appendix 6.4. This taxonomy was a refinement of that reported in Rackham and Morgan (1977). Behaviour analysts, including this author, were either supplied by Rackham's company, Huthwaite Research Group, or trained to the point where the coefficient of reliability (Spearman rank order correlation) with Huthwaite's categorisation of some standard aurally collected material was greater than 0.85 so that subsequent inter-rater reliability was likely to be high.

Measures of Competency at the Self-Concept/Values Level

The principal instrument of measurement will be the 16PF Questionnaire Form A (see Cattell, Eber and Tatsuoka, 1970 and IPAT Staff, 1986), which Spencer and Spencer (1993) would regard as a self-concept inventory, but smaller samples of data from the Management Values Inventory (Savage, 1988) will also be considered.

1. Self-Concepts

Unlike other measures used in this study, the nature and statistical properties of the 16PF scales are well documented (see Cattell, Eber and Tatsuoka, 1970) so will not be further discussed. Appendix 6.5 reproduces definitions of the 16 factors, or Primary Source Traits, per IPAT Staff, (1986).

Questionnaires were collected over the period 1981 to 1995 either in an assessment context or by calls for volunteers amongst those attending in-house residential courses.
The latter were part of a deliberate attempt to boost in-house norms for future assessment purposes, ie. a concurrent validation study.

2. Values

Since 1990 the author has been involved in running two series of in-house assessment centres which have involved the candidates completing the *Management Values Inventory* (Savage, 1988). The number of practising or former unit general managers who completed the questionnaire is insufficient to allow multiple regression analysis but the data will permit t-tests between the unit general manager sample and two successive 'feeder' grades.

Summary of the Data Collected

Table 6.5 summarises the data available for comparison between the variables discussed above.

Table 6.5
Size of Data Sets

Class of Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1. Index of Overall Success								
2. Job Size	92							
3. Overall Effectiveness Rating	74	73						
4. Five Year Appraisal Record	91	75	73					
5. Overall Appraisal Rating	54	44	44	43				
6. Accountability Ratings	54	43	44	42	43			
7. Skill Ratings	75	74	74	73	45	45		
8. Interactive Behaviours	62	48	53	48	30	30	53	
9. 16PF Primary Stens	86	76	69	72	43	43	70	47

ANALYSIS OF THE DATA

As indicated in Chapter 1, there are two objectives to this thesis. Firstly, there is the task of validating the model of unit general manager competencies hypothesised in Chapter 5. Secondly, there is the exploration of relationships between outputs, skills and personality attributes. Effectively, the latter involves testing Boyatzis' (1982, as amended by Spencer and Spencer, 1993) theory of dynamic interaction as it relates to Effective Action, Skills and Self-Concepts/Values. Neither Boyatzis, in *The Competent Manager*, nor the Spencers (1993) actually demonstrate the extent of this interaction although Dulewicz (1992, 1994) provides support that the interactions do exist.

Before testing either of the models it will be necessary to establish criterion measures. These are what Boyatzis called Effective Specific Actions or Behaviour (1982:13), ie.the outputs of the general managers job. The study will look at both constituent aspects of performance, ie. the accountabilities, and overall measures of success as a general manager.

Testing the Model of Unit General Manager Competencies

The aim in testing the hypothesised model of unit general manager competencies will be to ascertain whether measures of different levels of competency either help define the unit general manager (threshold competencies) or differentiate superior performance (competencies proper).

The first step will be to operationalise competencies at the skill level. This will be done by seeking a statement, or statements, derived from the DDI taxonomy which appear to reflect the hypothesised competency label and explore whether ratings of these correlate with specific accountabilities or overall performance measures.

If no corresponding statement is available then, for interpersonal competencies, an attempt will be made to operationalise from the behavioural data.

The test for competencies at the self-concept level will be by the multiple regression of 16PF scales with skill level competency ratings or interactive behavioural data.

Where regression methods fail to yield a significant result, t-tests may be used to identify differences between high, medium and low performers.

Testing Boyatzis' (1982) Dynamic Interaction Model

There are several options for testing Boyatzis' Dynamic Interaction Model. Tett et al. (1991) describe a method for validating psychometric instruments against performance criteria. This seems to involve calculating the mean correlation coefficient between *all* scales in the instrument and the criterion variable(s). In the opinion of the current author, this is to underestimate the validity of the instrument since, *a priori*, it is likely that some of the scales will have no relevance to the particular context under review. Dulewicz (e.g. 1992) seems to acknowledge this weakness as he deals only in hypothesised connections

between particular psychometric scales and particular skill level competency measures.

Given the multiplicity of data in the current study, Dulewicz's method would introduce too much complexity for an MSc thesis. The author, therefore, has set a more limited objective, simply to establish the maximum strength of relationship between the different *classes* of variable based on the data available to this study. These classes will include the successive inner circles illustrated in Figure 6.1 commencing with Effective Actions. The author will interpolate a level, interactive behaviours, between skills and self-concepts. The innermost circle, traits/motives, will not be examined since no operant data is available.

Since the aim is purely to test the strength of relationships between the different *classes* of variable, ie. *not* between specific variables, stepwise multiple regression will be the principal anlysis used.

The principal statistical tests used in this study will be, therefore, the t-test, linear regression and multiple regression. All statistical tests will be by the computer software CSS *(Complete Statistical System)* Release 2.1 (Statsoft: Tulsa, 1988)

Chapter 7

Measures of Effective Performance

DEFINING EFFECTIVE PERFORMANCE

According to Boyatziz (1982), *effective performance* is constituted of the specific requisite actions or behaviours, which lie at the intersection of the organisational environment and the job's demands, which will engage the individual's competencies. Boyatzis explains that 'effective performance of a job may be assessed by looking at the attainment of output objectives (i.e. results) or at the appropriate execution of procedures or processes.' (p13). He does not make it clear whether the plurality of the actions and behaviours occurs with a single role or between different roles. As indicated in chapter 6, the current study will consider both constituent accountabilities/key results areas and overall performance measures.

STATISTICAL PROPERTIES OF THE ACCOUNTABILITIES

In the various statistical tests which have been performed upon the accountability ratings *Superior* performance has been coded as 3, *Good/Satisfactory* as 2 and *Improvement Required* as 1. Data on the distribution of ratings is per Table 7.1.

Table 7.1
Distribution of Accountability Ratings

Accountability	*Ratings*		
	1	*2*	*3*
Results	7	21	16
Control	8	29	7
Team Building	3	34	7
Bus Development	2	28	14
Contacts	0	28	15

Thus the ratings for Control approximate well to a normal distribution curve whilst for the other four accountabilities there is a pronounced positive skew. The small number of cases receiving a rating of 1 for Team Leadership, Business Development and Contacts suggests range restriction. Either low performance is being selected out of the population or else it is not visible to those making the ratings. The effect may be to understate correlations with other classes of variable. Such are the limitations which arise in using operational rather than experimental data.

To test for the reliability of the accountability ratings, the author cross-tabulated the ratings given for each of the accountabilities in 1994, or the last occasion when a particular general manager had been appraised, with the ratings given for the **same accountabilities** in the **previous year**. He also intercorrelated the ratings given for the **different accountabilities** within the **same year**. The full, computer-generated correlation matrix is given as Appendix 7.1 and the average inter-year correlation coefficient is per Table 7.2.

Table 7.2
Inter-Year Correlations Between the Same Accountabilities
(N=38)

Results	0.65
Control	0.39
Team Building	0.74
Business Development	0.23
Contacts	0.29
Average	*0.46*

In 32 cases, the appraisals were conducted by the same person in both years so that the above statistic is a measure of intra-rater reliability. At 0.46 this is far short of the requisite figure for a psychometric instrument but it needs to be remembered that accountabilities are not stable personal attributes and performance around them is liable to change, hopefully in the direction of improvement. On the other hand the 0.46 measure of consistency between the same dimension rated on two occasions compares very favourably with an average correlation coefficient of 0.15 between the different dimensions rated on the same occasion. This suggests that the accountabilities are valid differentiating constructs and are not highly susceptible to the *halo* or *horns* effects.

EMPIRICALLY TESTING THE VALIDITY OF STANDARD ACCOUNTABILITIES

It will be recalled that this study postulates the five accountabilities as indicators of requisite performance within the culture, first of the Glynwed Group and secondly within that of multi-business groups who display the Financial Control style of corporate parenting. The first of these postulates will now be tested by re-examining the degree to which variations in ratings for the five standard accountabilities account for variations in Overall Appraisal Ratings (OAR).

Glynwed OARs make use of a seven point scale with the mid point labelled *Good* performance. The lowest rating is rarely used since the poorest performers have usually been removed from office before the time of annual appraisal. Also the highest category is prone to erratic usage; some raters using it frequently and most not at all. Accordingly, ratings in the two lowest and two highest categories have been combined for this study to give a 5 point scale (1=low;5=high). The distribution of OARs is per Table 7.3 and is positively skewed.

Table 7.3
Distribution of Overall Appraisal Ratings

Rating	*1*	*2*	*3*	*4*	*5*
N	3	6	15	18	4

The test of the accountabilities' continuing validity consisted of a stepwise multiple regression analysis on 45 cases with the OAR as the dependent variable and the five accountabilities as the independent variables. The sample size was bigger than that for the original study since the ratings of leavers have been retained and those of newcomers added. A Summary of the Stepwise Regression is given as Table 7.4 which is an extract from a computer printout.

Table 7.4
Summary of Stepwise Regression with Overall Appraisal Rating as the Dependent Variable and Accountability Ratings as Independent Variables

css/pc multp. regress.	SUMMARY of STEPWISE REGRESSION					
variable	Step +in/-out	Multiple R	Multiple R-Square	R-Square change	F - to entr/rem	Variabls included
CTL	1	.68492	.46911	.46911	36.22942	1
RES	2	.81438	.66321	.19410	23.05237	2
TM	3	.83012	.68911	.02590	3.24876	3
DEV	4	.85057	.72347	.03437	4.72270	4

Key:
RES1=Results
CTL1=Control
TM1 =Team Building
DEV1=Business Development

Four of the five variables were making a significant contribution to the explanation of variance in the OARs (adjusted R^2 0.694). This figure is unsurprising in itself since the same appraisers were making both the accountability ratings and the OAR but it does show that the standard accountabilities are telling most of the story as far as annual appraisal is

concerned. What is more interesting is the contribution of the different accountabilities. The Control accountability explains 47% of the variance with Short Term Results contributing a further 19%. Since annual appraisals are carried out in November, when business unit results for the year are becoming apparent, the focus on these two accountabilities might have been expected but their dominance of the appraisal process for unit general managers is still surprising. Team Building and Business Development added to the explanation of variance in OARs to a marginal extent only, a mere 3% each. On this occasion, the Contacts factor failed to achieve statistically significance at all. It will be recalled that ratings of the last three accountabilities were affected by range restriction but this is hardly likely to change the broad picture.

The strength of concern for control and short term results strongly supports the classification of Glynwed as a Group characterised by the Financial Control parenting style and justifies assigning pride of place to the Results Orientation cluster in the hypothesised competency model (see Table 5.7).

The importance of the Control factor also suggests that, in the Interpersonal Abilities cluster, the Directiveness competency will predominate over the one concerned with the development of relationships and this will be noted when formulating subsequent hypotheses.

It will be recalled that, in Chapter 6, certain measures of overall performance were also postulated as criterion variables.

RELATIONSHIPS AMONGST THE CRITERION VARIABLES

Correlation matrices summarising the relationships amongst the criterion variables are given in Appendix 7.2.

With regard to the overall performance measures:

1. There is no significant correlation between Overall Appraisal Ratings (OARs) and the two other, relatively independent, measures Overall Effectiveness Rating (OER) (r=0.22) and Job Size (JBSZ) (r=0.13)

2. There are strong correlations between OER and JBSZ (r=0.44) and between OER and the Average of Last Five Years' appraisals (FIVE) (r=0.50) and between FIVE and JBSZ (r=0.49)

With regard to the accountability ratings:

1. Control (CTL) and Results (RES) have a dominant connection with a single year's OAR (r=0.66 and r=0.63, respectively) but are secondary to Team Building (TM) and Contacts (CTC) over the longer period as measured by FIVE

2. Table 7.5, below, indicates significant relationships with the three overall performance measures which are based on annual appraisal.

Table 7.5
Multiple Regression Coefficients of Accountability Ratings and a Range of Overall Criterion Variables

Criterion Variable	*N*	*Multiple R*	*Adjusted R^2*	*p<*
Overall appraisal Ratings (OAR)	43	0.851	0.694	0.001
Five Year Appraisal Average (FIVE)	42	0.726	0.462	0.001
Overall Effectiveness Ratings (OER)	43	0.266	0.048	0.084
Job Size (JBSZ)	43	0.402	0.073	0.144
Index of Overall Success (IOS)	53	0.707	0.447	0.001

Thus, OARs seem to be measuring something more immediate and different from the other two independent overall indices. Of the accountabilities, Control and Short Term Results are factors which dominate year-end judgements of performance but not the longer-term measures.

Chapter 8

Competencies at the Skill Level

It will be recalled that in Boyatzis' (1982) model, skills are the most visible manifestations of a competency and lie between effective actions in one direction and self-concepts/values in the other and interact with both. The means by which skill ratings were gathered in Glynwed was described in Chapter 6. The current chapter will examine the statistical properties of the skill ratings before formulating and testing 3 hypotheses. The first hypothesis explores how far skill ratings correspond with and operationalise the list of requisite competency labels hypothesised in Chapter 5. The second concerns the relationship between skills and accountability ratings and the third hypothesis examines whether skills are more closely associated with specific or overall criterion variables.

STATISTICAL PROPERTIES OF THE SKILL RATINGS

The distribution of the five ratings amongst the 16 competencies and the Overall Effectiveness Rating (OER) is given in Appendix 8.1. Whilst median, mode and mean values are in the area of the central category, the data have an essentially ordinal basis and there are some risks in using parametric statistical tests. However, Baron (1996) comments '...it is permissible to treat most of the measurement methods in psychology as if they are interval scales, without harm to most studies'.

Since respondents were only asked to complete the exercise on a single occasion, it has not been possible to calculate an intra-rater reliability coefficient. Likewise, the number of subjects who have been rated by more than one person is insufficient to allow the calculation of an inter-rater reliability coefficient. The relevance of the latter statistic would, in any event, be questionable since the different raters would be reporting on the same subject at substantially different times in the subject's career.

FORMULATION AND TESTING OF HYPOTHESES CONCERNING COMPETENCIES AT THE SKILL LEVEL

Formulation of Hypotheses

The chapters of this study to date allow the postulation of a number of hypotheses concerning competencies at the skill level.

The first hypothesis is central to this study as it seeks to confirm the model of requisite competencies for unit general managers in Financial Control organisations which derives from the literature review.

HYPOTHESIS 1

Skill-level competency statements reflecting the hypothesised requisite competencies will correlate significantly with measures of overall job performance.

Second, based on Boyatzis (1982):

HYPOTHESIS 2

There will be significant correlations between competency ratings at the skill level and the requisite accountabilities.

Whilst Boyatzis makes an assertion along these lines, he does not offer statistical evidence in *The Competent Manager*. It does, however, seem logical that there should be some link between common managerial skills and performance in key results areas for the Glynwed unit general manager.

Next,

HYPOTHESIS 3

The possession of generic competencies at the skill level is more predictive of long-term/overall effectiveness than of proficiency in relation to specific accountabilities

This hypothesis is the mirror image of Hypothesis 2. It addresses assertions from several authors. For instance, Burgoyne (1990) said that 'The fact that management...has to create and define its own task means that there cannot be objective criteria for its performance.' and Kotter (1986) emphasised how the general manager has to create and pursue an

appropriate agenda. Thus the relevance of the specific accountabilities will vary from context to context and will not automatically mediate the relationship between skills and long-term/overall effectiveness.

Testing of Hypotheses

The correlation matrix involving the competency statements (CMP1-CMP16), the measures of overall job performance and the accountability ratings is given in Appendix 8.2. The data will now be used to test the three hypotheses as follows:

HYPOTHESIS 1

Skill-level competency statements reflecting the hypothesised requisite competencies will correlate significantly with measures of overall job performance.

Table 8.1 shows the list of requisite competencies hypothesised in Table 5.7, the author's judgements as to which of the 16 competency statements listed in Table 6.4 might operationalise the hypothesised competencies and the linear regression coefficients between ratings of these competency statements and the Index of Overall Success (IOS).

Table 8.1
Correlations of Competency Statements with Index of Overall Success (IOS)
(n=75)

Hypothesised Competencies	*Competency Statements*	*r with IOS*
	Results Orientation	
ACHIEVEMENT	9. Achieving objectives within the agreed time scale	0.52***
ENERGY	14. 'Getting things done' and meeting deadlines	0.56***
INITIATIVE	6. Putting forward ideas, suggestions and proposals	0.56***
CONTROL	15. Knowing if something was going wrong...	0.57***
ACTION BIAS	14. 'Getting things done' and meeting deadlines	0.56***
	Intellectual Abilities	
ANALYSIS	1. Considering facts from a number of sources	0.54***
BROAD INTERESTS	No corresponding competency statement	
	Interpersonal Abilities	
DIRECTIVENESS	No corresponding competency statement	
DEVELOPING RELATIONSHIPS	13. Involving colleagues and subordinates 10. Listening and taking account of the others	0.38** 0.28*
	Resilience & Adaptability	
INTEGRITY	No corresponding competency statement	
SELF-RELIANCE	5. Not incorporating other people's ideas/suggestions	-0.25*
EMOTIONALLY EVEN	8. Not giving in when opposition or difficulties appear	0.33**

*** p<.001; **p<.01; *p<.05

This hypothesis is well supported, particularly with regard to the predominant Results Orientation cluster. Regrettably, three of the hypothesised competencies have no corresponding competency statements at the skill level, although an attempt will be made to operationalise Directiveness in the next chapter. The average correlation coefficient between IOS and the statements operationalising the hypothesised competencies, above, is 0.45 whilst the mean coefficient between IOS and the remaining six of the original 16 statements is 0.35 which gives some support to the structure of the hypothesised model. The only hypothesised competency not supported is that offered as a measure of Self-Reliance. It appears that the successful manager is prepared to accommodate, if not actively to rely on, suggestions from other people.

HYPOTHESIS 2

There will be significant correlations between competency ratings at the skill level and the requisite accountabilities.

There was a maximum 45 cases where data existed for both requisite accountability ratings and ratings against competency statements. With five accountabilities and 16 competency statements, expected significant correlations due to chance would have been 4 at $p<0.5$ and 1 at $p<0.1$. Significant linear regression coefficients, stepwise multiple regression coefficients and the adjusted variances are given in Table 8.2

Table 8.2
Correlations Between Accountabilities and Skill Level Competency Ratings
(n=45)

Accountability	*CMP2*	*CMP6*	*CMP8*	*Multiple R*	*Adjusted R^2*
Results				0.00	0.00
Control				0.56**	0.25
Team Building				0.54*	0.18
Business Devel			-0.32*	0.80***	0.54
Contacts	0.31*	0.31*		0.52*	0.18
Mean				0.48	0.23

Key
*** p<.001; **p<.01; *p<.05
CMP2:Wanting to know the detailed aspects...
CMP6:Putting forward ideas...
CMP8:Not giving in...

The number of one-to-one correlations between individual competencies and the five accountabilities is less than chance although there are significant multiple coefficients for all accountabilities other than for Short Term Results. This seems to accord with Boyatzis' dictum, *viz*. 'Because job competencies are *underlying* characteristics, they can be said to be generic. A generic characteristic may be apparent in many forms of behavior, or a wide variety of different actions...when a person performs an act (i.e., demonstrates a specific behavior) which has a result or several results (i.e., outcomes), it is also expression of a characteristic or *of several characteristics*.' (1982:21)
The latter emphasis is that of the current author.

Another possible explanation of the lack of one-to-one association is that the two sets of ratings were based on developable constructs and that the mean time interval between the accountability ratings and skill ratings was 5years 3 months. This factor may have been compounded by range restriction in certain of the accountabilities. It may also be that the

skill dimensions were deficient as rating scales. This latter issue can be checked by observing how the ratings correlate with the measures of overall performance or against those scales which have psychometric provenance, as will be reported in Chapters 9 and 10.

Hypothesis 2 is, thus, generally supported but not to the extent of one-to-one correspondence between skill level competencies and accountabilities.

HYPOTHESIS 3

The possession of generic competencies at the skill level is more predictive of long term overall effectiveness than of proficiency in relation to specific accountabilities

Table 8.3 shows the multiple regression coefficients of skill-level competency statements and the various overall effectiveness criteria.

Table 8.3
Multiple Regression Coefficients of Skill Level Competency Statements and a Range of Overall Criterion Variables

Criterion Variable	*N*	*Multiple R*	*Adjusted R^2*	*p<*
Overall Appraisal Ratings (OAR)	45	0.552	0.174	0.045
Five Year Appraisal Average (FIVE)	73	0.495	0.200	0.001
Overall Effectiveness Ratings (OER)	74	0.754	0.523	0.001
Job Size (JBSZ)	74	0.532	0.218	0.001
Index of Overall Success (IOS)	75	0.706	0.445	0.001

The high association with OER might be expected since these ratings and those of the individual competencies were made by the same raters at the same time. More impressive are the correlations with the five Year appraisal Average (FIVE) and Job Size (JBSZ) since both raters and time of rating are different. Hypothesis 3 is, thus, supported in that there are sound associations between the skill level competencies as a class and the overall performance measures. Also, these correlations are marginally stronger than those with accountabilities.

SUMMARY

Only minimal one-to-one correlations have been found between competency statements at the skill level and ratings of accountabilities. However substantial relationships have been revealed between skill level competencies *as a class* and both individual accountabilities and longer-term overall success criteria.

Chapter 9

Interpersonal Competencies at the Skill Component Level

It will be recalled that one of the four generic clusters of management competencies reported in Chapter 5 was Interpersonal Abilities. It was hypothesised that, for the Glynwed unit general manager, this cluster would comprise the, potentially competing, competencies of directiveness (Kotter, 1982; Cox and Cooper, 1988) and the ability to develop relationships (Kotter, 1982; Spencer and Spencer, 1993). However, Kotter suggested that the ability to develop, mainly lateral, relationships was likely to be less important amongst autonomous/semi-autonomous general managers, as in the present study, than with product or market general managers. In the last Chapter it was possible to present two skill-level competency statements which had, *a priori*, some bearing on Developing Relationships and which correlated with the Index of Overall Success. It was not, however, possible to operationalise Directiveness in the same way nor to comment on the manner by which any conflict between the two competencies was resolved in practice.

Since the empirical evidence of the interpersonal competencies at the skill level is incomplete it was thought useful to look elsewhere. As was explained in Chapter 6, the author had access to detailed data relating to the interactive behavioural habits of the population which forms the basis of this study. The data will be examined to explore how far the habitual bias towards the use of certain behaviours might associate with the hypothesised competencies of Directiveness and Developing Relationships.

The level of data examined in this chapter is not one that is separately identified in Boyatzis' (1982) model although that author clearly implied the existence of what this study is labelling as *skill components* when he said 'Skill is the ability to demonstrate a system and sequence of behavior that are functionally related to attaining a performance goal. Using a skill is not a single action...'(p33). This chapter will consider behaviours that might be sequenced or, alternatively, single actions or favourite behaviours which might combine to constitute a skill.

THE NATURE OF GENERAL INTERACTIVE BEHAVIOURS

Since the General Interactive Categories evolved as a skill development tool, discussion of their psychological properties has been tangential. In fact, Rackham and Morgan (1977) refer to their '..."improve not prove" philosophy'. However, Rackham's (1978) publication states 'Certain behaviours are habit-forming. We tend to adopt behaviours in particular situations, and we develop habits which are hard to break, even when the behaviour is no longer appropriate' (p63). How far different personality traits predispose individuals to participate in 'particular situations' and/or acquire certain interactive behavioural habits will be explored in later chapters.

Because they contend that behavioural habits are situationally determined, Rackham and Morgan do not explicitly publish generally applicable normative data. However, a table is presented in Rackham and Morgan (1977) which shows the aggregate behavioural profile for a group of eight people which, presumably, is not untypical of those attending their *Developing Interactive Skills* courses, ie. mainly managers and supervisors in the air transport and travel industry. The profile is reproduced as Table 9.1 below:

Table 9.1
A Published Behavioural Profile of Managers/Supervisors

Behaviour	***Percentage of all Behaviours***
Proposing	9.5
Building	2.1
Supporting	11.4
Disagreeing	7.2
Defend/Attacking	0.3
Testing Understanding	2.3
Summarising	2.0
Seeking Information	16.5
Giving Information	48.7
TOTAL	*100.0*
Shutting Out	11.3
Bringing In	2.3

After Rackham and Morgan (1977)

The categories of Blocking/Difficulty stating and Open, given in Rackham and Morgan's (1977) taxonomy, have been combined with Disagreeing and Giving Information, respectively, so as to equate with the revised categorisation given in Rackham (1978).

Shutting Out and Bringing In are *process* behaviours. They do not have *content* and occur in conjunction with other behaviours. For this reason their incidence has been expressed as a percentage of total behaviours in the first nine categories.

The above data are not in themselves very revealing but there are certain secondary analyses which are of interest to the current study. Firstly, Rackham and Morgan (1977) report on two distinctive styles of relating to others with which 'Most people have a tendency to prefer or feel comfortable...' One style consists of high on Proposing, Giving Information and Shutting Out, compared with their study mean, and low on Building, Seeking Information and Testing Understanding and has been labelled the *Push* style. The other consists of high on Building, Seeking Information and Testing Understanding and low on Proposing, Giving Information and Shutting Out and is termed the *Pull* style. *A priori*, the Push style might be associated with Directiveness and the Pull style with Relationship Building.

Secondly, Rackham (1978) suggests two ratios which might be significant to the current study. The first of these is the ratio of Giving Information to Seeking Information plus Testing Understanding (GVSK). As a rule of thumb, Rackham suggests that if the ratio is greater than 2.5:1, the individual is more likely to be perceived as explaining his/her own views than as exploring those of others. The second ratio is that of Seeking Information to Testing Understanding (SKTS). High use of the former would tend to be perceived as concern for issues and facts and the latter as concern for people and interpretation. Low GVSK and SKTS ratios might associate with a lower tendency to Directiveness/more concern with Relations Building.

THE BEHAVIOURAL PROFILES OF GLYNWED DIRECTORS AND EXECUTIVES

Although there are no published general population means, the data collected in respect of the total 232 directors and managers who attended the Glynwed courses can be used as a base line against which to compare the 48 individuals who were unit general managers at the time of attending the course or who achieved this status at a later date. Firstly, the profiles, styles and ratios of all the Glynwed participants can be compared with Rackham and Morgan's example per Table 9.2 as follows:

Table 9.2
Glynwed Directors/Executives' Behavioural Profile

Behaviour	*Rackham & Morgan's Profile* %	*Glynwed Profile* %
Proposing	9.5	13.7
Building	2.1	1.5
Supporting	11.4	8.0
Disagreeing	7.2	3.3
Defend/Attacking	0.3	0.0
Testing Understanding	2.3	5.2
Summarising	2.0	2.3
Seeking Information	16.5	14.2
Giving Information	48.7	52.2
TOTAL	100.0	100.4
CONTROLLING BEHAVIOURS		
Shutting Out	11.3	11.3
Bringing In	2.3	0.4
Styles		
Push	69.5	77.2
Pull	20.9	20.9
Ratios		
Giving to Seeking + Testing	2.6:1	2.7:1
Seeking to Testing	7.2:1	2.7:1

Since the percentage is an ipsative statistic, it is not appropriate to execute a T-test on the two sets of data but it does appear that the Glynwed population is more pushy than Rackham and Morgan's example and this might be expected from an organisation where controlling is a central feature of the culture. In fact, the next hypothesis can be postulated and tested.

HYPOTHESIS 4

If the interactive behavioural data on senior Glynwed managers is factor analysed, evidence of a directive style of management will be found

A factor analysis was executed on the number of behaviours per person per category per hour. Since the mean contribution rate was 108 behaviours per hour, the average profile was similar to that based on percentages as included in Table 9.2. Because Defend/Attacking behaviours were extremely rare this category was excluded from the analysis. Loadings of greater than 0.3 are included in Table 9.3 as follows:

Table 9.3
Factor Analysis of Interactive Behavioural Categories
(N=232)

Category	*Factor Loading*
FACTOR 1 (Eigenvalue:2.1)	
Total contributions per hour	0.96
Proposing	0.80
Giving Information	0.78
Seeking Information	0.73
Bringing In	0.56
Summarising	0.53
Testing Understanding	0.53
Shutting Out	0.52
Disagreeing	0.48
Supporting	0.41
Building	0.41
FACTOR 2 (Eigenvalue:1.19)	
Shutting Out	0.60
Disagreeing	0.51
Bringing In	-0.50
Summarising	-0.39
Giving Information	0.35
Building	-0.33
Testing	-0.30

The first factor which emerged simply reflects the rate of contribution to the discussions. All ten of the behavioural categories have a substantial and positive loading. The second factor supports the hypothesis in that two of the expected positive loadings of the Push style (Giving Information and Shutting Out) and two of the expected negative loadings (Building and Testing Understanding) are present. The other positive and negative loadings are also as might be expected from a directive style.

THE BEHAVIOURAL PROFILES OF SUBSIDIARY UNIT GENERAL MANAGERS

Statistical Properties of the Data

Behavioural profiles exist in respect of 48 unit general managers. In some analyses, the number is inflated to 62 to correspond with this number of criterion variable ratings available due to multiple ratings of the same person by different raters. Means, standard

deviations and frequency distribution of behaviours across five intervals of equal width shown in Table 9.4.

Table 9.4
Distribution of Interactive Behaviours

Behaviour	*Interval*					*Mean per hr*	*Standard Deviation*
	Low				*High*		
	1	*2*	*3*	*4*	*5*		
Proposing	4	21	21	0	2	14.3	5.5
Building	4	21	20	2	1	1.5	0.8
Supporting	26	18	1	1	2	8.9	4.1
Disagreeing	13	18	11	5	1	4.0	2.1
Defend/Attacking	47	0	0	0	1	0.2	0.1
Testing Understanding	10	18	14	5	1	6.1	3.2
Summarising	11	14	6	7	10	2.8	1.7
Seeking Information	23	16	5	3	1	16.0	7.2
Giving Information	16	12	14	4	2	53.8	17.2
Shutting Out	11	18	13	3	3	13.3	5.0
Bringing In	34	12	0	1	1	0.4	0.6
TOTAL PER HOUR	6	18	15	6	3	107.7	29.6

Most of the behaviours are more or less normally distributed although this does not apply to Defend/Attacking and Bringing In, both of which are barely represented in the data collected.

Differences Between Unit General Managers and Other Directors/Executives

Given that two, possibly competing, requisite competencies of unit general managers (Directiveness and Relationship Building) have been hypothesised, it might be expected that some toning down of the Push style and an increase in some or all of the Pull style behaviours compared with other executives would be found. Three further hypotheses will, therefore, be formulated and tested.

HYPOTHESIS 5

The constituent behaviours of the Pull style will be more prevalent in the unit general manager sample than with other Glynwed directors/executives.

HYPOTHESIS 6

The constituent behaviours of the Push style will be less prevalent in the unit general manager sample than with other Glynwed directors/executives

HYPOTHESIS 7

Glynwed unit general managers will display a lower ratio of Giving Information to Seeking Information/Testing Understanding and of Seeking Information to Testing Understanding than other Glynwed directors/executives.

The latter hypothesis comprises two indicators of a greater concern to explore the views of others.

The test of these hypotheses is Table 9.5 below.

Table 9.5
Comparison of Glynwed General Managers and Directors/Executives' Behaviours

Behaviour	***Unit General Managers*** *(n=48)*	***Other Directors/ executives*** *(n=185)*
Proposing	14.2	15.0
Building	1.4	1.7
Testing Understanding	6.1	5.4
Seeking Information	15.8	15.2
Giving Information	53.3	57.2
Shutting Out	13.0	12.0
Styles *(positively loading behaviours only)*		
Push	80.5	84.3
Pull	23.3	22.3
Ratios	*(n=45)*	*(n=182)*
Giving to Seeking + Testing	2.6:1*	3.3:1
Seeking to Testing	3.1:1	3.6:1

*p<0.2

Whilst most of the Push and Pull behaviour differences, other than Building and Shutting Out, are in the expected direction, none are significant. So Hypotheses 5 and 6 are not supported. Hypothesis 7 is supported to the extent that unit general managers display significantly more concern to explore others' viewpoints than do their colleagues. This should aid relations building.

FORMULATION AND TESTING OF HYPOTHESES CONCERNING COMPETENCIES AT THE SKILL COMPONENT LEVEL

Formulation of Hypotheses

On the basis of this and previous chapters, four further hypotheses are now proposed. Hypothesis 8 is offered as a reminder that a degree of directiveness was postulated as a requisite competency of general managers both as a rule and in the particular context of a Financial Control culture such as applies in Glynwed.

HYPOTHESIS 8

Some or all of the constituent behaviours in the Push style and/or the aggregate behaviours for that style will correlate with measures of overall effectiveness.

Hypotheses 9 and 10 address Boyatzis' (1982) dynamic interaction model as it relates to effective actions and competencies in the area of interpersonal relations.

HYPOTHESIS 9

Some or all of the constituent behaviours in the Pull style and/or the aggregate behaviours for that style will correlate with Relationship Building competency ratings at the skill level.

HYPOTHESIS 10

Some or all of the constituent behaviours in the Pull style and/or the aggregate behaviours for that style will correlate with the Contacts accountability ratings.

This latter is premised on the likelihood that the best contact maker/maintainer will be the person who is most interested in the contribution/views of the other party.

Finally, Hypothesis 11 reflects suggestions by Kotter (1986) and Burgoyne (1990) that specific accountabilities do not necessarily mediate relationships between skills, or components thereof, and overall effectiveness as a senior manager.

HYPOTHESIS 11

Behavioural profiles are more predictive of long term/overall effectiveness than of proficiency in relation to specific competencies at the skill level or specific accountabilities

Testing of Hypotheses

The correlation matrices involving the behavioural profiles, the competency statements, accountability ratings and the measures of overall job performance are given in Appendix 9.1.

HYPOTHESIS 8

Some or all of the constituent behaviours in the Push style and/or the aggregate behaviours for that style will correlate with measures of overall effectiveness.

Table 9.6 gives correlations between Push behaviours and measures of overall effectiveness.

Table 9.6
Correlations between Push Behaviours and Measures of Overall Effectiveness

Behaviour	*OAR*	*FIVE*	*OER*	*JBSZ*	*IOS*
Proposing	-0.06	0.02	0.10	0.36*	0.06
Giving Information	-0.08	-0.04	-0.04	0.25	-0.07
Shutting Out	-0.03	-0.16	-0.28*	-0.10	-0.22
(Building)	0.00	-0.04	0.06	-0.03	-0.06
(Testing Understanding)	-0.25	-0.02	0.34*	0.36*	0.13
(Seeking Information)	-0.28	-0.14	0.11	0.15	-0.07
Total Push Behaviours	-0.07	-0.06	-0.07	0.29*	-0.09

Key:
*p<0.05
OAR=Overall Appraisal Rating
FIVE=Average of last five year's appraisals
OER=Overall Effectiveness Rating
JBSZ=Job Size
IOS=Index of Success

Thus, Hypothesis 8 is not generally supported save that Proposing and Total Push Behaviours seem to be significant in gaining promotion as does Testing Understanding which belongs to the Pull style cluster. The most agressive Push behaviour, Shutting Out, correlates negatively with the Overall Effectiveness Rating

HYPOTHESIS 9

Some or all of the constituent behaviours in the Pull style and/or the aggregate behaviours for that style will correlate with Relationship Building competency ratings at the skill level.

The competency ratings which operationalised the hypothesised requisite competencies of Relationship Building are:

CP10. Listening and taking account of the others' point of view

CP13. Involving colleagues and subordinates when making decisions

Table 9.7 gives correlations between Pull behaviours and ratings against competency statements CP10 and CP13.

Table 9.7
Correlations Between Pull Behaviours and Relationship Building Competency Ratings

Behaviour	*CP10*	*CP13*
Building	0.29*	0.27
Testing Understanding	0.12	0.19
Seeking Information	0.17	-0.02
(Proposing)	-0.03	0.03
(Giving Information)	-0.03	0.00
(Shutting Out)	-0.16	-0.15
Total Pull Behaviours	0.20	0.07

*p<0.05

Hypothesis 9 is, thus, only weakly supported. 11 out of the 14 correlates are in the expected direction but only one, Building, shows a significant relationship.

HYPOTHESIS 10

Some or all of the constituent behaviours in the Pull style and/or the aggregate behaviours for that style will correlate with the Contacts accountability ratings.

Table 9.8
Correlations Between Pull Behaviours and Contacts Accountability

Behaviour	*CTC*
Building	-0.22
Testing Understanding	0.03
Seeking Information	0.22
(Proposing)	0.06
(Giving Information)	0.08
(Shutting Out)	0.10
Total Pull Behaviours	0.17

*p<0.05

Thus Hypothesis 10 is not supported.

HYPOTHESIS 11

Behavioural profiles are more predictive of long term/overall effectiveness than of proficiency in relation to specific competencies at the skill level or specific accountabilities

This hypothesis is tested in Table 9.9 below.

Table 9.9
Multiple Regression Coefficients of Interactive Behaviours and Competency Statements at the Skill Level, Accountability Ratings and a Range of Overall Criterion Variables

Criterion Variable	*N*	*Multiple R*	*Adjusted R^2*	*p<*
Skill Level Statements*				
CMP1 (Considering facts...)	53	0.62	0.32	.001
CMP2 (Wanting...detailed aspects)	53	0.36	0.10	.030
CMP3 ([not] Sitting on the fence...)	53	0.53	0.17	.031
CMP4 (Giving clear reasons...)	53	0.54	0.22	.005
CMP5 (Incorporating others' ideas...)	53	0.39	0.10	.043
CMP6 (Putting forward ideas...)	53	0.61	0.29	.002
CMP7 (Taking a calculated gamble...)	53	0.33	0.05	ns
CMP8 ([not] Giving in...)	53	0.25	0.05	ns
CMP9 (Achieving objectives...)	53	0.50	0.18	.008
CP10 (Listening...)	53	0.43	0.13	.019
CP11 (Getting positive responses...)	53	0.59	0.27	.002
CP12 (Developing unity...)	53	0.45	0.14	.024
CP13 (Involving colleagues...)	53	0.45	0.12	.049
CP14 (Getting things done...)	53	0.51	0.20	.006
CP15 (Knowing if something...wrong...)	53	0.49	0.18	.009
CP16 (Producing written work...)	53	0.45	0.16	.010
Mean		0.47	0.17	
Specific Accountabilities				
Short Term Results (RES)	30	0.72	0.33	.030
Control (CTL)	30	0.60	0.19	ns
Team Leadership (TM)	30	0.33	0.08	ns
Business Development (DEV)	30	0.65	0.28	.032
Contacts (CTC)	29	0.35	0.05	ns
Mean		0.53	0.19	
Overall Effectiveness Criteria				
Overall Appraisal Ratings (OAR)	30	0.75	0.47	.001
Five Year Appraisal Average (FIVE)	48	0.38	0.06	ns
Overall Effectiveness Ratings (OER)	53	0.62	0.32	.001
Job Size (JBSZ)	48	0.63	0.31	.002
Index of Overall Success (IOS)	62	0.64	0.31	.001
Mean		0.60	0.29	

** Full definitions are given in Table 6.4*

Thus, the average correlation coefficient of the behaviour category variations with the 16 skill level statements is 0.47, with the 5 accountabilities is 0.53 whilst with the overall criterion variables it is 0.60. Hypothesis 11 is, therefore, supported.

SUMMARY AND COMMENT

With regard to interactive behavioural habits, it appears that the directive Push style is woven deep into the fabric of Glynwed management. This can be inferred both from a comparison with non-Glynwed managers (Table 9.2) and a factor analysis of the interactive behaviours displayed by Glynwed directors and executives as a whole (Table 9.3). One behaviour from each of the two styles, Proposing (Push) and Testing Understanding (Pull), correlates with a measure of overall success, Job Size. Both of these behaviours are those which would be favourably noticed in the types of context where the GM would be observed by his supervisor. There is some evidence (Table 9.5) that the Glynwed unit general manager needs to temper or supplement the directive behaviours. Relationship Building has been hypothesised as a key part of the job and too much Push, particularly the aggressive Shutting Out behaviour, is probably inimical to this function.

Turning to the more general theme of exploring the structure of competencies, this chapter has been concerned with the relationship between interactive behavioural habits, as a component of interpersonal skills, and the middle layers of Boyatzis' (1982) model of dynamic interaction. With regards to specific competencies, a weak link has been established between the Pull style and two statements which operationalised Relationships Building (Table 9.7) but none with the accountability Contacts (Table 9.8). The Push style has no hypothesised correlates at either skill or accountability level but, as indicated above, one of its constituent behaviours correlates significantly with a measure of long term success, Job Size (Table 9.6). With regard to relationships concerning whole classes of layers/variables, the association between interactive behaviours has strengthened as comparisons have moved, progressively, from specific skills to specific accountabilities to longer-term measures of overall effectiveness.

Chapter 10

Competencies at the Self-Concept and Values Level

This final chapter in the statistical section of the research will explore whether the competencies hypothesised in Chapter 5 are possessed by successful Glynwed unit general managers at the self-concept/values level, ie the level which Spencer and Spencer (1993) suggest is open to examination via respondent psychometric measures.
The principal instrument of measurement will be the 16PF Questionnaire Form A (see Cattell, Eber and Tatsuoka, 1970 and IPAT Staff, 1986), which Spencer and Spencer would regard as a self-concept inventory, but smaller samples of data from the Management Values Inventory (Savage, 1988) will also be considered.

As before, Boyatzis' theory of dynamic interaction will be further tested. On this occasion the links will be explored between competencies manifested at the self-concept/values level and those at skill level and then between the self-concept measures and specific output measures. Finally, a counter hypothesis will be tested by looking for linkages between self-concept measures and indices of overall effectiveness.

THE PERSONALITY PROFILES OF GLYNWED UNIT GENERAL MANAGERS

For the purpose of this study it is necessary to know that raw scores on each of the 16PF scales are converted to Standard Ten (Sten) scores with a mean of 5.5 and a standard deviation of 2. The sten scores for the Glynwed data relate to British General Population Male: Form A given in Saville (1972). They have been corrected for motivational distortion.

Table 10.1 below shows the mean sten scores of Glynwed unit general managers contrasted with the uncorrected stens derived from the mean raw scores of a large published sample of British male managers over 35 years of age (Morgan and Morgan, 1990), a sample of British male managing directors of companies with over 1000 employees selected at random from a comprehensive trade index (Cox and Cooper, 1988) and a substantial sample of Glynwed directors/executives excluding those who have had experience as a unit general manager. All of the Glynwed general managers, and all but a handful of Glynwed directors/executives, were British, male and over 35 years of age.

Table 10.1
Comparison of 16PF Mean Stens for Glynwed Unit General Managers and Other Managerial Populations

Factor (High scoring labels)		*British Male Managers >35 years* (a)	*British Male Managing Directors* (b)	*Glynwed Directors/ Executives* (c)	*Glynwed Unit General Managers* (d)	*Significance of (c)-(d) differences (T-test)* (e)
N		*467*	*31*	*302*	*76*	
A	Warm	6	6.9	6.5	6.6	ns
B	Abstract thinking	9	7.0	7.7	7.5	ns
C	Stable	6	6.7	6.3	6.2	ns
E	Dominant	7	7.1	7.1	7.4	ns
F	Enthusiastic	6	4.9	6.9	6.9	ns
G	Conscientious	6	5.9	6.6	6.7	ns
H	Bold	7	5.7	7.3	7.5	ns
I	Tender-minded	6	5.8	4.1	4.4	ns
L	Suspicious	5	4.6	4.8	5.1	ns
M	Imaginative	7	5.9	6.5	6.9	ns
N	Shrewd	4	6.0	4.3	4.3	ns
O	Apprehensive	5	4.5	3.9	4.1	ns
Q1	Experimenting	6	5.9	5.9	5.8	ns
Q2	Self-sufficient	5	6.6	4.7	4.4	ns
Q3	Follows self-image	6	6.4	6.3	5.9	ns
Q4	Tense	5	5.5	5.0	5.1	ns

(a) Morgan and Morgan, (1990)
(b) Cox and Cooper (1988

On the basis of sample size and difference from the general population mean sten of 5.5, it appears that the defining qualities of all managers are greater Intelligence (B) and Dominance (E) and probably also Boldness (H). On the basis of statistical tests, there are no significant differences between the Glynwed unit general manager population and the bigger Glynwed directors/executives sample. This is not surprising given that most Glynwed general managers were previously functional directors/executives in the same organisation. In contrast to the two external samples, the Glynwed managers look Tougher (I-), as might be expected in a less sophisticated business context and more Enthusiastic (F), which might relate to the action bias hypothesised in Chapter 5. Other, less pronounced, distinctions are higher Conscientiousness/conformity (G), Self-confidence (O-) and Group dependence (Q2-). These comparisons with external norms are assumptions, ie not based on statistical tests.

FORMULATION AND TESTING OF HYPOTHESES CONCERNING COMPETENCIES AT THE SELF-CONCEPT LEVEL

Formulation of Hypotheses

The following hypotheses are offered concerning variations in sten scores for the 16PF scales. Since the scales are bi-polar, it does not make sense to hypothesise whether the correlations are positive or negative.

Hypotheses 12 and 13 are concerned with the construct validity of the elements in the competency model for Glynwed unit general managers operationalised in Chapter 8.

HYPOTHESIS 12

There will be significant correlations between individual 16PF primary scales, and/or combinations thereof, and specific requisite skill level competencies in the Glynwed unit general manager model.

HYPOTHESIS 13

There will be significant correlations between individual 16PF primary scales, and/or combinations thereof, and a greater concern for other peoples' views as indicated by a reduced ratio of Giving Information to Seeking Information plus Testing Understanding (GI/SK)

Hypotheses 14 and 15 are attempts to test Boyatzis' (1982) model of dynamic interaction between components of job performance and levels of competencies, ie between *whole classes* of construct.

HYPOTHESIS 14

There will be significant correlations between 16PF primary scales and the General Interactive Behaviours

HYPOTHESIS 15

There will be significant correlations between 16PF primary scales and competency ratings at the skill level.

Hypothesis 16 is suggested by a comment from Weightman (1994) '..for a more complex job with unpredictable aspects in the future, perhaps the personal qualities associated with inputs may prove more useful'. She seems to hint that with complex jobs, the more generic levels of competence (ie.the self concepts level in Spencer and Spencer's (1993) taxonomy) may be more predictive of performance.

HYPOTHESIS 16

There will be greater correlation between 16PF primary scales and accountability ratings than between skill-level competency measures and accountability ratings

Hypothesis 17 reflects, once again, the implications of Kotter (1986) and Burgoyne (1990), that specific accountabilities do not necessarily mediate relationships between competencies and overall effectiveness as a senior manager.

HYPOTHESIS 17

The 16PF primary scales will be more predictive of long term/overall effectiveness than of proficiency in relation to specific accountabilities

Testing the Hypothesised Glynwed Unit General Manager Competency Model

HYPOTHESIS 12

There will be significant correlations between individual 16PF primary scales, and/or combinations thereof, and specific requisite skill level competencies in the Glynwed unit general manager model.

Table 10.2 replicates the list of Glynwed unit general manager competencies hypothesised in Chapter 5 which were successfully operationalised in Chapter 8 (Table 8.1). It records the single and multiple regression co-efficients achieved by postulating the 16PF primary scales as independent variables and the skill-level competency statements as the dependent variables. It will be recalled that there were no competency statements reflecting Broad Interests, Directiveness, Integrity and Self-Reliance so these are excluded from Table 10.2.

Table 10.2
Significant Correlations of 16PF Primary Scales with Ratings of Skill-Level Competencies
(N=70)

	16PF Primary Scales					*Multiple*
Competencies	***A***	***B***	***C***	***M***	***N***	***R***
Results Orientation						
ACHIEVEMENT			43***		25*	58***
Achieving objectives within the agreed time scale						
ENERGY						38*
Getting things done and meeting deadlines						
INITIATIVE		30*				44*
Putting forward ideas, suggestions and proposals						
CONTROL						38ns
Knowing if something was going wrong						
ACTION						38*
Getting things done and meeting deadlines						
Intellectual Abilities						
ANALYSIS	29*	50***		30*		66***
Considering facts from a number of sources						
Interpersonal Abilities						
RELATIONSHIPS						
Involving colleagues and subordinates			27*	25*	24*	54**
Listening and taking account of others		43***		28*		58***
Resilience & Adaptability						
EMOTIONALLY-EVEN						41*
Giving in when difficulties appear (reversed)						

Decimal points omitted *$p<0.05$; **$p<0.01$; ***$p<0.001$

Four of the eight hypothesised competencies supported at the skill level have significant correlates at the self-concept level with individual 16PF primary scales and all but one have a significant multiple regression coefficient. This accords with Boyatzis' (1982) general prediction. The single non-significant correlation is surprising, given the earlier conclusion that Glynwed exhibits a Financial *Control* style of corporate parenting. Fortunately, Cattell et al. (1970) postulated the second order factor Control (QVIII), the principal components of which are Conscientiousness (G) and Following Self-Image (Q3). Whilst this factor, also, fails to correlate significantly with the skill-level competency ratings and even with any of the overall performance indicators, a t-test reveals a significant difference between the stens recorded for the lowest and average scoring general managers on the Index of Overall Success (IOS). Details are given in Table 10.3, below.

Table 10.3
Mean Second Order 16PF Control (QVIII) Stens for Different Performance Groups as Measured by the Index of Overall Success

	Performance Group		
	Low	***Average***	***High***
Mean Sten	5.85	6.85	6.96
N	23	45	18
	LvA	***LvH***	***AvH***
Significance Level of T-tests	0.04	0.03	ns

Boyatzis (1982) encountered similar pattern of results for certain competencies and referred to these as *threshold* competencies, ie they were an essential ingredient for average performance but higher amounts of the competency did not produce superior performance.

Thus, Hypothesis 12 is well supported save that Management Control, at the self-concept level, is identified as a threshold competency and not a feature of superior performers.

HYPOTHESIS 13

There will be significant correlations between individual 16PF primary scales, and/or combinations thereof, and concern for other peoples' views as indicated by a reduced ratio of Giving Information to Seeking Information plus Testing Understanding (GVSK)

It will be recalled that in Chapter 9, it was possible to infer that the directive *Push* style was a threshold competency of Glynwed managers in general. Whilst the mean interactive behaviours for unit general managers tended to show a marginal bias away from the Push

style and towards the Pull style the differences, compared with the whole director/executive sample, were not significant. The only meaningful significant difference was a lower ratio of Giving Information to Seeking Information plus Testing Understanding (GVSK) on the part of general managers. The ratio, which is an expression of concern for people, was found to be a threshold competency of general managers.

To test Hypothesis 13, the author executed a stepped multiple regression analysis with the (GVSK) ratio as the dependent variable. Multiple R was 0.57 ($p<.01$). The constituent independent variables were Imagination (M+), Assertiveness (E+) and Stability (C+) which correlate with Testing Understanding, Warmth (A+) which correlates more with Seeking Information and Self Confidence (O-) which correlates with Giving Information.

Thus the competency of greater concern for people, as expressed at the skill component level, is supported at the self-concept level as predicted by Boyatzis's (1982) Dynamic Interaction Model.

Testing Boyatzis' Dynamic Interaction Model

The first test of the generality of Boyatzis' (1982) model looks at the relationship between the two classes of variable reported in the most recent chapters, self-concepts and Rackham's interactive behaviour categories.

HYPOTHESIS 14

There will be significant correlations between 16PF primary scales and the General Interactive Behaviours

This hypothesis was tested by executing a series of stepped multiple regression analyses with the 16PF primary stens as the independent variables and Rackham's (1978) General Interactive Behaviour categories as the dependent variables. The results are given in Table 10.4.

Table 10.4
Multiple Regression Coefficients of 16PF Primary Stens with General Interactive Behaviour Categories
N=47

Behaviour	*Multiple R*	*Adjusted R^2*	*p<*
Proposing	0.241	0.015	ns
Building	0.577	0.213	0.020
Supporting	0.320	0.061	ns
Disagreeing	0.674	0.321	0.005
Testing Understanding	0.545	0.230	0.005
Summarising	0.594	0.237	0.012
Seeking Information	0.481	0.178	0.010
Giving Information	0.454	0.130	0.043
Shutting Out	0.650	0.282	0.009
Bringing In	0.498	0.177	0.016
Mean	0.503	0.198	

Thus, with 16PF primary scales correlating significantly with eight out of ten general interactive behaviour categories, Hypothesis 14 is supported. On average, it is possible to predict approximately 20% of variation in interactive behaviours on the basis of 16PF primary sten scores.

HYPOTHESIS 15

There will be significant correlations between 16PF primary scales and competency ratings at the skill level.

Whilst Hypothesis 12 looked at the relationship between 16PF scores and specific unit general manager competencies at the skill level, Table 10.5 examines the generality of the relationship between the 16 primary scales and all 16 skill level management competency statements, as predicted by Boyatzis' (1982) Dynamic Interaction Model.

Table 10.5
Multiple Regression Coefficients of 16PF Primary Stens with Skill-Level Competency Ratings
N=70

Competency	*Multiple R*	*Adjusted R^2*	*p<*
CMP1	0.663	0.367	0.001
CMP2	0.567	0.257	0.001
CMP3	0.463	0.140	0.016
CMP4	0.611	0.314	0.001
CMP5	0.531	0.250	0.001
CMP6	0.444	0.134	0.014
CMP7	0.452	0.128	0.022
CMP8	0.406	0.113	0.019
CMP9	0.583	0.277	0.001
CM10	0.581	0.285	0.001
CM11	0.506	0.198	0.002
CM12	0.412	0.132	0.007
CM13	0.537	0.221	0.002
CM14	0.375	0.088	0.041
CM15	0.384	0.067	ns
CM16	0.618	0.313	0.001
Mean	0.508	0.205	

Thus, Hypothesis 15 is supported. On average, it is possible to predict approximately 20% of variation in skill competency ratings on the basis of 16PF primary sten scores. This statistic is almost identical to that associating interactive behaviours and 16PF stens.

The next test relates to a hypothesis based on an inference from Weightman (1994).

HYPOTHESIS 16

There will be greater association between 16PF primary scales and accountability ratings than between skill-level competency measures and accountability ratings

Table 10.6 looks at the relationship between 16PF scores and annual appraisal ratings in respect of specific unit general manager accountabilities.

Table 10.6
Multiple Regression Coefficients of 16PF Primary Stens with Accountability Ratings
N=43

Accountability	*Multiple R*	*Adjusted R^2*	*p<*
Short Term Results	0.419	0.112	ns
Control	0.533	0.141	ns
Team Leadership	0.563	0.224	0.013
Business Development	0.394	0.066	ns
Contacts	0.215	0.023	ns
Mean	0.425	0.113	

Thus, the hypothesis is not supported. 16PF primary stens account for, on average, just 11.3% of the variation in accountability ratings compared with 18.6% explained by interactive behaviours and 23% by skill-level competency ratings. The self concept layer of Boyatzis' (1982) Dynamic Interaction Model (see Chapter 3, p55 to the current study) seems to relate most closely to its nearest outlying neighbour

HYPOTHESIS 17

The 16PF primary scales will be more predictive of long term/overall effectiveness than of proficiency in relation to specific accountabilities

Table 10.7 compares stepped multiple regression coefficients of 16PF stens with specific accountability ratings and long term/overall effectiveness measures.

Table 10.7
Multiple Regression Coefficients of 16PF Primary Stens with Accountability Ratings and a Range of Overall Criterion Variables

Criterion Variable	*N*	*Multiple R*	*Adjusted R^2*	*p<*
Specific Accountabilities				
Short Term Results (RES)	43	0.419	0.112	ns
Control (CTL)	43	0.533	0.141	ns
Team Leadership (TM)	43	0.563	0.224	0.013
Business Development (DEV)	43	0.394	0.066	ns
Contacts (CTC)	42	0.215	0.023	ns
Mean		0.425	0.113	
Overall Effectiveness Criteria				
Overall Appraisal Ratings (OAR)	43	0.421	0.114	ns
Five Year Appraisal Average (FIVE)	72	0.470	0.149	0.011
Overall Effectiveness Ratings (OER)	69	0.627	0.313	0.001
Job Size (JBSZ)	76	0.441	0.136	0.009
Index of Overall Success (IOS)	86	0.447	0.117	0.023
Mean		0.481	0.166	

Thus Hypothesis 17 is marginally supported. The multiple regression coefficients are of slightly greater magnitude with the overall performance criteria compared with the specific accountabilities. Also, whilst four of the five correlations with the overall performance criteria are significant this only occurs with Team Leadership as far as the accountability ratings are concerned.

VALUES AS A MEASURE OF COMPETENCY

So far, it has been possible to test most of the hypothesised competencies at one or more of the skill, interactive skill component or self-concept levels. An exception is the competency of *broad interests*.

Since 1990 the author has been involved in running two series of in-house assessment centres which have involved the candidates completing the *Management Values Inventory* (Savage, 1988). The number of practising or former unit general managers who completed

the questionnaire is insufficient to allow multiple regression analysis but the data will permit t-tests between the unit general manager sample and two successively more junior levels per Table 10.8.

Table 10.8
Comparison of Management Value Stens of Unit General Managers with Those of General Manager and Functional Director Candidates Attending Assessment Centres

Value Scales	*Unit General Managers* (a)	*Unit General Manager Candidates* (b)	*Unit Functional Directors Candidates* (c)	*Significance of Difference* (a)v(b)	(b)v(c)	(a)v(c)
N	22	42	53			
Work Ethic	5.5	5.9	6.4	ns	ns	p<0.05
Responsibility	5.8	6.5	6.6	ns	ns	ns
Risk Taking	6.7	6.0	6.4	ns	ns	ns
Task Orientation	6.5	6.3	6.9	ns	ns	ns
Leadership	7.0	6.8	6.5	ns	ns	ns
Activity	6.3	5.7	6.0	ns	ns	ns
Status	5.3	5.4	6.0	ns	ns	ns
Self Esteem	6.2	5.7	6.1	ns	ns	ns
Achievement Need	6.2	6.4	6.5	ns	ns	ns
Mental Challenge	4.6	5.4	5.7	ns	ns	p<0.05
Innovation	5.5	5.4	5.7	ns	ns	ns
Analysis	4.9	6.0	6.0	ns	ns	p<0.05
Detail	4.4	5.5	5.8	ns	ns	p<0.03
Stability	4.5	5.0	5.4	ns	ns	p<0.04
Structure	4.8	4.8	5.4	ns	ns	ns
Career Development	3.8	4.7	5.3	ns	ns	p<0.01
Sociability	5.0	5.4	5.3	ns	ns	ns
Inclusion	6.3	5.8	6.2	ns	ns	ns
Warmth	3.8	4.3	4.2	ns	ns	ns
Tact	4.6	5.0	5.3	ns	ns	ns
Tolerance	3.7	4.3	4.9	ns	ns	p<0.02

Unlike the self-concept measure which showed no significant differences between Glynwed unit general managers and the population from which they had been recruited there are differences with 7 out of 21 values scales between the practising general managers and the sample two stages junior. This supports the mutability of values compared with self-concepts

Whilst there is no scale which positively suggests broad interests it can be argued the *Detail* scale is an inverse indicator of the requisite competency, so a further hypothesis is postulated:

HYPOTHESIS 18

The Management Values Score for Detail will be Lower for Unit General Managers than for More Junior Managers

Since the mean unit general manager Detail score is 4.4, that for one grade lower 5.5 and two grades lower 5.8 and since the difference between the first and the last is significant ($p<0.03$), Hypothesis 18 is supported.

SUMMARY

The scene at the end of this chapter is complex, being the culmination of tests concerning the interaction of five layers of managerial attributes, *viz.* self-concepts/values, skill components (interactive behaviours), skills, specific accountabilities and overall performance measures.

In summary, with regard to the hypothesised Glynwed unit general manager the findings are:

1. The self-concept Dominance, *a priori* related to the requisite competency of Directiveness, is probably a defining characteristic and threshold competency of the wider UK management population.

2. With the exception of Control, all requisite competencies which were operationalised at the skill level in Chapter 6 have significant self-concept correlates.

3. This skill level competency of Control has a self-concept correlate but only as a threshold competency.

4. Greater Concern for People, which was established as a threshold competency in Chapter 9, has correlates at the self-concept level

5. The hypothesised competency Broad Interests correlates significantly, and in the expected negative direction, with the management value Detail.

Boyatzis' (1982) Dynamic Interaction Model is supported in the relationships between self-concepts and interactive behaviours and skills. Self-concepts also correlate, but to a lesser extent, with both specific accountabilities and overall performance measures.

For reference, the matrices correlating 16PF stens with overall performance measures, accountabilities, skill-level competencies and interactive behaviours are given in Appendix 10.2

Chapter 11

Summary and Discussion 1: The Unit General Manager Model

The aim of this chapter is first to draw together the strands of evidence presented in Chapters 7-10 and consider how far they validate the model of a successful unit general manager's (GM) competencies hypothesised in Chapter 5

REPRISING THE UNIT GENERAL MANAGER MODEL

The model, first presented as Table 5.7, is reprised as Table 11.1 below.

Table 11.1
Hypothesised Subsidiary General Manager Competencies in Financial Control Organisations

Results Orientation
Achievement
Energy
Initiative
Control
Bias for action
Intellectual Abilities
Analysis
Broad interests
Interpersonal Abilities
Directiveness
Fairly good at developing relationships
Resilience & Adaptability
Integrity
Self-reliance/confidence
Emotionally even

It should first be noted that the pre-eminence of Results Orientation over the other clusters was supported by an analysis of the annual appraisal process which revealed how the criteria of Control and Short Term Results predominated (see Chapter 7). However, the interpersonal accountabilities, Team Building and Contacts, were found to be more important in relation to longer-term overall performance measures.

THRESHOLD COMPETENCIES

It will be recalled that Boyatzis (1982) introduced the concept of a *threshold* competency, ie one which was an essential ingredient for average performance but of which higher quantities did not produce superior performance. In the current research:

- Directiveness appears to be a fundamental threshold competency of all UK managers in any context. It is fundamental because it exists at the self-concept level. The 16PF data (Table 10.1) shows a sten difference of 1.5 in respect of Factor E (Assertiveness) between British Managers aged over 35 years, with a mean sten of 7, and the general UK male population. Neither Glynwed executives (sten 7) nor unit GMs (sten 7.1) differ significantly from that norm. At the skill component level, Glynwed executives in general appeared to behave with more *Push,* or directiveness, than a published sample of managers elsewhere but unit GMs slightly less so. The Push behaviours do not correlate with any of the measures of overall effectiveness, save that Proposing has a significant association with career progress as measured by job size attained, but so does Testing Understanding from the Pull cluster. These behaviours may serve to get the manager noticed by his/her superiors.

- Control is a threshold competency for Glynwed unit GMs at the self-concept level but one that differentiates superior performance at the skill level. The 16PF second order factor Control (QVIII) is mainly concerned with conformity and self-image, the extremes of which can produce rigidity. On the other hand, skill level Control in this study has been operationally defined as 'Knowing if something in the operation is going wrong and doing something about it'. It is difficult to see how this skill, so defined, could be demonstrated to excess in a Financial Control organisation

- Broad Interests is, at least, a threshold competency of the unit GM on the basis that the latter is less interested in Detail than are lower levels of management. Sample size is insufficient to permit correlation with criterion variables so as to test whether it differentiates superior performers and thereby qualify as a true competency.

SUPPORTED COMPETENCIES

Achievement, Energy, Initiative, Action Bias, Analysis, Developing Relationships and Emotional Eveness all correlate, at the skill level, with the Index of Overall Success (IOS)

and have single or multiple correlates at the self-concept level. The latter lends weight to the construct validity of the competencies. Furthermore, micro-behavioural data indicates that GMs displayed more concern to explore others' viewpoints than did their functional management colleagues. Whilst the GM is directive this is tempered by consideration which will aid the development of relationships.

UNTESTED COMPETENCIES

Integrity is the only competency which it has not been possible to test at either the skill level or self-concept level. None of the extant Glynwed competency statements, in relation to which ratings has been obtained, came anywhere near the conventional definition of integrity. The possibility of using the 16PF *Faking Good* scale was considered, but rejected since it was designed as a test of the authenticity of the responses not as a measure of personality.

REJECTED COMPETENCIES?

Chapter 5 postulated Self-Reliance/Confidence as a competency. An attempt to operationalise this as the *reverse* of 'Incorporating other people's ideas/suggestions into his/her work' failed in Chapter 8. Incorporating others' ideas actually correlated with success.

At the self-concept level, the 16PF Second Order Factor, QIV Independence (see Cattell et al.; 1970:129-130) incorporates the primary factors O- Self Confidence and Q_2+ Self Sufficiency as well as other scales. The Glynwed unit GM scores high on Self-Confidence but low on Self Sufficiency whilst Cox and Cooper's (1988) Managing Director (MD) scores high on both.

Two interesting findings emerge from an analysis of the Independence scores:

- Whilst the QIV scores of the unit GMs do not correlate with overall success, a t-test between the average (n=45; mean sten 6.6) and the best performers (n=18; mean sten 7.4) just misses significance (p=0.053).

- The unit GM's Independence score (7.0) is higher than that of the MD (6.6). What the unit GM loses in Self Sufficiency is more than compensated for by higher Self

Confidence (O-) and Assertiveness (E) (see Table 10.1). Cox and Cooper's MD is independent by doing his/her own thing; the Glynwed GM *negotiates* independence by persuading the team to lend support.

Thus, self-confidence looks like a threshold competency of all general managers and the composite factor of independence may, if properly operationalised, differentiate superior performance.

WHICH COMPETENCIES ARE MOST IMPORTANT?

This is the practical question posed by this thesis because the answer will point to potentially more relevant selection and development activity. Basically, the threshold competencies of Directiveness and Control are essential at the self-concept level, at least in average proportions (say, not less than sten 5 on the 16PF scales for Assertiveness (E) and Control (QVIII)).

On the basis of correlation coefficents between skill-level competency ratings and IOS, competencies in the Results Orientation cluster have the highest consistent association with success and the Intellectual Ability, Analysis, has similar magnitude. Developing Relationships is of a lower order as is Emotional Eveness. Greatrex (1990) writing about assessment centre judgements said '...assessors have tended to rate achievement, motivation and cognitive skills higher than interpersonal sensitivity' (104).

It should be understood that competencies which seem critical at the mean population level are not invariably attributes of successful individual performers. Cox and Cooper (1988) comment "Successful managers show a very wide variety of personality traits and characteristics; even those which occur most commonly, such as 'assertiveness', are not universal".

HOW FAR CAN THE FINDINGS BE GENERALISED?

It will be recalled that the model reprised in Table 11.1 above was premised on the literature review. It was an attempt to hypothesise the competencies of an autonomous/semi-autonomous unit general manager as defined by Kotter (1982) in an organisation characterised by the Financial Control corporate parenting style as defined by Goold and Campbell (1987). In so far that the empirical Glynwed data validates this model, it has

relevance with regard to that category of general manager. The boundaries of generalisation beyond that category are best explored by comparisons of Glywed data with wider population norms. The sharpest contrast is with the 16PF data because of the comparator provided by Cox and Cooper's (1988) mean stens for what appears to be Kotter's (1982) CEO role (see Table 10.1). The most relevant distinction relates to Factor Q2, Self-Sufficiency, where Cox and Cooper's mean is sten 6.6 compared with the Glynwed unit GM's 4.4. Furthermore, there are differences of more than one sten in relation to six of the 16 primary scales which suggests two distinct personalities.

There are no comparative data sets for general manager roles in respect of any other measures. However, Table 9.2 indicates that the wider Glynwed executive population displayed a much greater percentage of Push behaviours (77.2%) compared with Rackham and Morgan's (1977) sample (69.5%). This suggests that Directiveness may be more prevalent or acceptable in the Financial Control context than in some others.

Chapter 12

Summary and Discussion 2: The Dynamic Interaction Model

It will be recalled that the second strand of research in this study involves the testing of Boyatzis' (1982) Dynamic Interaction Model by identifying how much of the variance in performance outputs is explained by competencies at the skill level and at the level of personality attributes (or self-concepts as Spencer and Spencer (1993) term them). The skill level was measured by supervisor ratings against competency statements and /or by observed behavioural data, which have been termed interpersonal skill component data in the context of this report. Chapter 12 will examine this relationship and also relationships between the different levels of competency. Finally, it will explore whether specific accountabilities and the different levels of competency add value in explaining variations in overall performance.

THE VALIDITY OF THE MEASURES

It is now possible to assess more fully the validity of the classes of variable included in this report by cross tabulating mean correlation coefficients. The first point to note is the intercorrelations between relatively independent output variables. Secondly, are the correlations between skill level ratings and output variables. Finally, and of particular interest, are the correlations between skill level ratings and both interactive behaviours and personality attributes since the construct validity of the last two classes has already been attested in the literature.

A matrix, showing the inter-correlation of the classes of variable, as reported in previous chapters, is given in Table 12.1.

Table 12.1
Inter-correlations Between Classes of Variables

Class of Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1.Index of Overall Success								
2.Job Size	70***							
3.Overall Effectiveness Rating	73***	44***						
4.Five Year appraisal Average	85***	49***	50***					
5.Overall Appraisal Rating	76***	13	22	64***				
6.Accountabilities	m71***	m40	m27	m73***	m85***			
7.Skill Level Competencies	m71***	m53***	m75***	m49***	m55*	am48		
8.Interactive Behaviours	m64***	m63**	m62***	m38	m75***	am53	am47*	
9.16PF Primary Stens	m45*	m44**	m63***	m47*	m42	am42	am51*	am50*

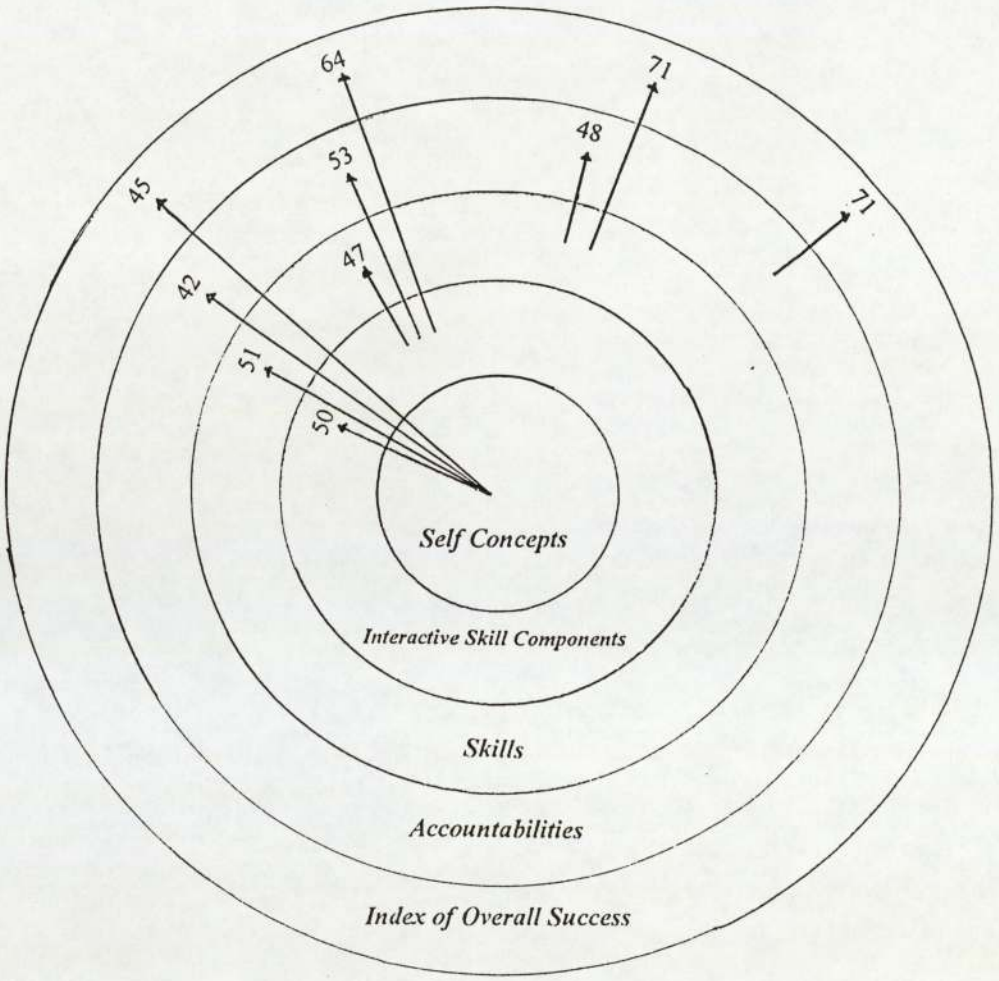
Decimal points omitted; m=multiple regression coefficient; a=average
*** p<.001; **p<.01; *p<.05

The only weak correlations are those between the last Overall Appraisal Rating (OAR) and Job Size (0.13) and Overall Effectiveness Rating (0.22). As was discussed in Chapter 7, OAR is overwhelmingly influenced by Control and Short Term Results. Notwithstanding these figures, all classes of variable correlate around 0.50 or more with at least one other variable, or class of variable, the measure of which is relatively independent

ADJACENT RELATIONSHIPS IN THE DYNAMIC INTERACTION MODEL

It will be recalled that Boyatzis' Dynamic Interaction Model postulated the mutual interaction between its adjacent classes of variable. Figure 12.1 summarises the mean correlation coefficients between the classes of variable included in this study.

Figure 12.1
Mean Multiple Regression Co-efficients Between Different Classes of Input Competencies and Output Variables



Decimal points not included

Figure 12.1, thus, supports Boyatzis' assertion to the extent that such adjacent relationships exist in all cases although they are not necessarily the strongest ones. For reasons already discussed in Chapter 8, the overall output measures correlate more strongly with skill competencies (0.71) and interactive behaviours (0.64) than do specific accountabilities (0.48 and 0.53, respectively). In turn, the skill competencies and interactive behaviours correlate significantly (0.51 and 0.50, respectively) with self-concepts. The inference from Weightman (1994), that for more complex jobs the self concepts might be more predictive of overall performance than specific intermediate variables, is not borne out. As can be

seen, there is a very slight decline in the mean coefficient as the correlations with self-concepts move outwards from specific criteria towards the Index of Overall Performance (IOS). Also both skill ratings (r=0.71) and interactive behaviours (r=0.64) correlate more strongly with IOS than do self-concepts (r=0.45). It seems that observed input *behaviours* (skills and skill components) are better predictors of observed output *behaviours* than are self-concepts.

ADDING VALUE IN ASSESSMENT AND SELECTION

It would be of practical value to know the extent to which each class of competency variable adds to the explanation of overall performance variance. Table 12.2 is a matrix showing the amount of variance in the five indices of overall performance explained by the different competency measures used in this thesis.

Table 12.2
Variance in Overall Performance Explained by Different Competency Measures

Competency Measure Adjusted Variance	*Overall Performance Measures*									
	OAR		*FIVE*		*OER*		*JBSZ*		*IOS*	
	R^2	*n*	R^2	*n*	R^2	*n*	R^2	*n*	R^2	*n*
Self-Concepts	0.11	43	0.15	72	0.31	69	0.14	76	0.12	86
Interactive Behaviours	0.47	30	0.06	48	0.32	53	0.31	48	0.31	62
Skills	0.17	45	0.20	73	0.52	74	0.22	74	0.44	75
Self-Concepts + Behaviours	0.99	30	0.23	48	0.53	53	0.53	48	0.53	60
All Measures	**0.93**	**40**	**0.90**	**53**	**0.95**	**53**	**0.97**	**53**	**0.87**	**53**
Self-Concepts + Skills	0.31	45	0.29	70	0.80	56	0.38	70	0.54	70
Behaviours + Skills	1.00	40	0.27	53	0.80	46	0.58	53	0.60	53

Key
OAR=Overall Appraisal Rating
FIVE=Five year appraisal average
OER=Overall Effectiveness Rating
JBSZ=Job Size
IOS=Index of Overall Success

The variance explained by skill ratings needs to be treated with caution as far as the Overall Effectiveness Rating (OER) is concerned since both skill and criterion ratings were made by the same people at the same time. Also, OERs were one of four equally weighted factors which contributed to IOS. However, skill ratings explain more variance than either self-concepts or behaviours in relation to the five year appraisal average and more than self-concepts in respect of Job Size. In both cases the incremental contribution of the three successive competency measures are more than just additive.

The author was sceptical that the very large compound correlation coefficients might simply have been an artefact of sample size irregularity. To check this possibility, further multiple

regression analyses were undertaken against the Index of Overall Success (IOS) on the 23 cases for which data relating to all variables was available. This sample was *not* inflated by multiple ratings. The resultant matrix, which included accountabilities as a class of independent variable, is included as Appendix 12.1. The correlation coefficients are generally higher than in Table 12.2. Once again caution is necessary, this time because of the small sample size. The analysis shows that self-concepts can explain up to 31% of the variance in overall performance, a figure which compares well with the results of meta analysis reported in Smith (1986) where he reports r=0.38, which would explain 14.4% of variance. Interactive behaviours explain up to 47% of OAR variance and self-concepts plus behaviours explain up to 99% of the same measure.

With all of the reservations concerning the exact size of correlation coefficients in Table 12.2 and Appendix 12.1 there is little room for doubt in the general assertion that each class of competency measure, and accountability ratings, contributes to the explanation/prediction of performance. It would, therefore, be worthwhile for selectors and assessors to use all four indicators.

Chapter 13

Reflections

LIMITATIONS OF THE STUDY

The first limitation to this study arises out of the need to focus a large, complex subject into the limited scope offered by a two-year part-time MSc thesis. Undoubtedly, this has meant that several interesting themes, identified in the earlier chapters, have been neglected during the empirical stages. One such avenue might have been to explore the longitudinal dimension, i.e. have standards of performance changed over the decade during which the data were gathered? Another avenue might have been to explore the comparative impact of the environmental, job demand and individual competency components of Boyatzis' (1982) model of Effective Job Performance (see Figure 1.1).

There are a number of limitations to the data analysed in this study. Firstly, most of the criterion measures, both accountabilities and overall performance indices, were direct supervisory judgements. They involved interpretation of events which allows scope for bias and error. This limitation is likely to exist in the study of most complex managerial roles since, as was reported in Chapter 3, 'The fact that management...has to create and define its own task in which to be competent means that there cannot be prior objective criteria for its performance.' (Burgoyne, 1990:21). The exception to this limitation was the Job Size criterion since jobs were not evaluated by supervisors, although people were placed in jobs as a result of supervisory judgements.

The second difficulty lay in the situation where the Overall Effectiveness Rating (OER) and judgements of competency at the skill level were undertaken by the same person at the same time. It is hoped that the particular, card sort, method of obtaining the data might have curtailed the contamination. Certainly both the OER and skill ratings correlate with other, relatively independent, measures (see Table 12.1) and sometimes only slightly less than they correlate with each other. To an even more limited extent, the contamination will be present in comparisons of the skill data with the Index of Overall Success (IOS) since the OER is one of the four, equally weighted, elements in that measure. Because the data has been collected over more than a decade, contamination with and between other overall performance measures will be slight. Two other classes of data, interactive behaviours and

self-concepts, do not involve any supervisor judgements and will, therefore, be free from this particular form of contamination.

A further difficulty arose because of the decision to use extant management data. This was necessary in order to obtain reasonably sized samples by including former as well as current job holders. The specific problem lay in operationalising the hypothesised competencies at the skill level by reference to a pre-existing taxonomy. The taxonomy was sufficiently generic to provide definition to most of the competencies but, as indicated in Chapter 11, no equivalent ratings were available for Integrity and others might have been more precise had they been specially formulated with the hypothesised competencies in mind. This limitation may have resulted in reduced correlation coefficients.

A further limitation, which may also have produced reduced correlation coefficients, was the extremely long time over which the data were accumulated. This was of particular concern with regard to the comparison of skill ratings and accountabilities. Both classes of variable are inherently prone to change in the medium/long term and should therefore be collected/compared contemporaneously. In the current study, the mean time difference between obtaining the two sets of data was more than five years.

Finally, and as with most studies of subjects who are job holders, samples will be liable to range restriction. This arises when those who do not possess or display the requisite qualities fail to get selected. Further range restriction arose out of decisions to collapse various of the criterion data. In some instances this was aimed at improving the quality of ratings. However, where it was done simply to arrive at an arithmetically unbiased Index of Overall Success, the same end could have been achieved by the use of more sophisticated standardisation devices.

The net effect of the above limitations on the current study is likely to be an overall understatement of all correlation coefficients between the variables with the exception of those between skill ratings and the OER and IOS criteria.

SUGGESTIONS FOR FUTURE RESEARCH

As mentioned in Chapter 6 (p55), the author has developed the senior management human resourcing systems for Glynwed in an iterative manner. Most recently he has facilitated the development of behavioural anchors for annual appraisal which should improve the consistency of future accountability ratings. More broadly, it would be useful and interesting to contrast the current unit general manager competency model with one hypothesised and validated for an organisation where the dominant parenting style was that of Strategic Planning. This may be difficult since groups of this genre tend to be constituted of fewer and bigger business units than Glynwed so sample size may be more problematic. This might be overcome by including more than one organisation in the study.

This thesis has demonstrated a series of linkages between self-concepts, interactive behavioural habits, skills, accountabilities and overall performance measures. The co-variance between successive classes of variable is rarely more than 20% but this is sufficiently large to be useful and, since the explanatory power of the classes seem to be cumulative, the use of a multi-level assessment process should make for highly accurate prediction. Such a procedure might use validated self-concept questionnaires, skill assessment by HR specialists conducting Behaviour Event Interviews and assessment of output competences by line managers. Both skill and output assessments could be informed by 360^0 feedback instruments.

Theoretically, the arrangement just described would constitute an excellent basis for future research, since all measures would be independent of each other. There would, potentially, be some contamination if the line management interviewer and the overall criterion rater were the same person, although the assessments could be separated in time.

In practical terms, it is unlikely that such research could be conducted in respect of unit general managers in a Financial Control culture. The current data, with all its limitations, took years to collect and/or was undemanding of line management time and/or relied on concentrations of data providers on in-house courses. If the relationships discussed in this chapter are to be further explored, it would be best done in the context of a large, homogenous management population with a high rate of labour turnover. Large retail chains or branch networks in the financial services sector would be obvious targets.

CONCLUSIONS

This study set out to answer two questions. Firstly, the question as to what are the requisite competencies of the subsidiary unit general manager in a Group which features the Financial Control style of corporate parenting. The picture which emerges is that Results Orientation and Analytical Ability are the best discriminators of superior performance and that the successful job holder will also need a good measure of Directiveness, tempered by consideration for others, and Self Confidence. Unlike the more senior chief executive role, the unit general manager is a team player, not a loner.

On the second question posed by this study, it can be concluded that relationships do exist between outputs, skills and personality attributes in the unit general manager role. The covariance between these classes of phenomena averages 29% within the input variables (skills, interactive behaviours and self concepts) and 28% between input variables and overall performance measures.

The most valuable insight of this research has been the possibility of combining measures of the different classes of variable to explain nearly all of the variation in overall performance. Of course, the population which formed the subject of this research comprised *selected* job holders and it remains to be seen whether a battery of off-job measures could predict similar variation in overall performance from a candidate population. As indicated elsewhere, the author is an assessment and development practitioner. As a result of this research he is now collaborating with experienced line managers and an outside agency to devise situational interview formats premised on standard accountabilities. Simultaneously, he and his fellow HR specialists are being trained, or are gaining experience, in assessing skill level competencies via Behaviour Event Interviewing. Finally, the author has collaborated in a programme to assign candidates to Low, Medium and High performance categories by comparing 16PF profiles with the results of discriminant function analyses on existing/previous job holders. In this way he hopes to capitalise on the additive value of measuring all three classes of variable in a selection context.

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Appendix 2.1

Summary of Ten Managerial Roles

Role	Description	Identifiable Activities from Study of Chief Executives (see Appendix C)
Interpersonal		
Figurehead	Symbolic head; obliged to perform a number of routine duties of a legal or social nature	Ceremony, status requests, solicitations
Leader	Responsible for the motivation and activation of subordinates; responsible for staffing, training, and associated duties	Virtually all managerial activities involving subordinates
Liaison	Maintains self-developed network of outside contacts and informers who provide favors and information	Acknowledgments of mail; external board work; other activities involving outsiders
Informational		
Monitor	Seeks and receives wide variety of special information (much of it current) to develop thorough understanding of organization and environment; emerges as nerve center of internal and external information of the organization	Handling all mail and contacts categorized as concerned primarily with receiving information (e.g., periodical news, observational tours)
Disseminator	Transmits information received from outsiders or from other subordinates to members of the organization; some information factual, some involving interpretation and integration of diverse value positions of organizational influencers	Forwarding mail into organization for informational purposes, verbal contacts involving information flow to subordinates (e.g., review sessions, instant communication flows)
Spokesman	Transmits information to outsiders on organization's plans, policies, actions, results, etc.; serves as expert on organization's industry	Board meetings; handling mail and contacts involving transmission of information to outsiders
Decisional		
Entrepreneur	Searches organization and its environment for opportunities and initiates "improvement projects" to bring about change; supervises design of certain projects as well	Strategy and review sessions involving initiation or design of improvement projects
Disturbance Handler	Responsible for corrective action when organization faces important, unexpected disturbances	Strategy and review sessions involving disturbances and crises
Resource Allocator	Responsible for the allocation of organizational resources of all kinds—in effect the making or approval of all significant organizational decisions	Scheduling; requests for authorization; any activity involving budgeting and the programming of subordinates' work
Negotiator	Responsible for representing the organization at major negotiations	Negotiation

Source: Mintzberg (1973:92-93)

Appendix 2.2

A Profile of the Participants in Kotter's Survey, the Businesses for Which They Were Responsible and the Corporations for Which They Worked

The 15 General Managers

—All with some profit-center responsibility

—All with some multifunction responsibility

—From nine different corporations

—Located across the United States

—Average 1978 compensation (salary & bonus) = $150,000

—Average age = 47

The Business for Which the GMs were Responsible

Industries	*Number of Participants*	*Yearly Revenues (1979)*	*Number of Participants*
Manufacturing		$1 billion or greater	2
Consumer Products	1	$100 million–$1 billion	3
High Technology	2	$50 million–$100 million	3
Other	3	$10 million–$50 million	4
Nonmanufacturing		$1 million–$10 million	3
Banking	2		15
Communications	3		
Professional Services	2		
Retailing	2		
	15		

The Corporations for Which They Worked

Business Mix	*Number of Companies*	*Size (1979 Revenue)*	*Number of Companies*
Single business	2	$5 billion or more	2
Dominant Business	4	$1–5 billion	3
Diversified (Related business)	2	$100 million–$1 billion	2
Diversified (Unrelated business)	1	$100 million or less	2
	9		9

Source: Kotter (1982:3)

Appendix 4.1

Parenting Style Characteristics

Summary of Strategic Planning Characteristics

The common denominators between the companies with what we have termed the Strategic Planning style are therefore as follows:

- Responsibility for strategy development at business level in first instance, but multiple perspectives from different levels and overlapping businesses encouraged.
- Extensive formal and informal plan review processes to raise the quality of business thinking, to allow multiple perspectives to be expressed, and to permit corporate views to influence strategy proposals. Some selectivity between businesses in their application.
- Central management willing to support strategic themes for portfolio development, and particular thrusts or suggestions for individual businesses.
- Centralized attempts to integrate and coordinate strategies across divisions and businesses.
- Centre allocates resources to support agreed strategy, and sets priorities between options.
- Capital projects and new business entries both from business or corporate ideas. Corporate sponsorship particularly important for major new initiatives.
- Long- and short-term goals, and strategic and financial targets, emerge from plans.
- Detailed reporting of performance for each profit centre to central management.
- Flexible control, in terms of incentives and sanctions, for actual performance versus planned objectives. Key concern is with strategic progress.

Source: Goold and Campbell (1987:70)

Summary of Strategic Control Characteristics

The common denominators between the companies whose style we have termed Strategic Control are therefore as follows:

- Devolution of responsibility for strategy development to divisional and business level.
- Strong divisional management level which handles coordination between businesses in each division, but little corporate attempt to coordinate across divisions or achieve synergies.
- Extensive formal and informal plan review processes to raise the quality of business thinking.
- General avoidance by the centre of strategic themes, thrusts or specific suggestions for businesses.
- Central allocation of resources to support agreed strategy, and setting of priorities between projects.
- Capital projects and new business entries generally proposed by businesses, with few major corporate initiatives except on closures and divestments.
- Objectives set in terms of long-and short-term goals and strategic and financial targets.
- Detailed reporting of performance for each profit centre to the corporate management.
- Tight control, in terms of incentives and sanctions, for actual performance versus planned objectives.

Source:Goold and Campbell (1987:101)

Appendix 4.1

Parenting Style Characteristics (continued)

Summary of Financial Control Characteristics

The common denominators between the companies we have termed Financial Control are, therefore, as follows:

- Delegation of responsibility for strategy development to business unit and even profit centre level.
- Group level managers that provide a transparent flow of information between the businesses and the centre.
- A focus on the budget process as the most important planning process.
- Avoidance of initiatives from the centre in the form of themes or thrusts, yet liberal use of suggestions from the centre where appropriate.
- Clear screening of investment projects and the use of short-term payback criteria to eliminate weak projects.
- A philosophy that the centre will fund all 'good' projects.
- Major use of acquisitions, initiated by the centre and by divisions, as the engine for growth.
- Insistence that the budget is a contract between the centre and the businesses and that annual financial performance is he critical measure of achievement.
- Frequent monitoring and review of performance against budget.
- Strong pressure immediately applied to businesses with performance problems, and management changes readily made in the face of continued problems.

Source:Goold and Campbell (1987:133)

Appendix 5.1

THE SKILLS THAT MAKE MANAGERS SUCCESSFUL

What competencies are consistently present in successful managers and separate them from other managers? The American Management Association recently completed a five year study aimed at pinpointing exactly what characterizes managerial stars. They isolated a total of nineteen competencies falling within five critical clusters. The results of this survey have been published in *The Competent Manager* by Richard E. Boyatzis, published by John Wiley & Sons.

The competencies and the skills associated with them are:

THE GOAL AND ACTION MANAGEMENT CLUSTER

Competency	*Skills*
•Efficiency orientation	Goal-setting, planning, efficient organization of resources
•Proactivity	Problem solving, information seeking
•Diagnostic use of concepts	Pattern identification through concept application, deductive reasoning
•Concern with impact	Symbolic influence behavior

THE LEADERSHIP CLUSTER

Competency	*Skills*
•Self-confidence	Self-presentation skills
•Use of oral presentations	Verbal presentation skills
•Logical thought	Organization of thought and activities, sequential thinking
•Conceptualization	Pattern identification through concept formation, thematic or pattern analysis

THE HUMAN RESOURCE MANAGEMENT CLUSTER

Competency	*Skills*
•Use of socialized power	Alliance producing results
•Positive regard	Verbal and nonverbal skills that result in people feeling valued
•Managing group process	Instrumental affiliative behaviors, group process skills
•Accurate self-assessment	Self-assessment skills, reality testing skills

THE DIRECTING SUBORDINATES CLUSTER

Competency	*Skills*
•Developing others	Skills in feedback to facilitate self-development
•Use of unilateral power	Compliance producing skills
•Spontaneity	Self-expression skills

Source: Kepner Tregoe (1983:18)

Appendix 5.2

Dimensions of Effective Performance

Leadership/Influence Dimensions
- Visionary Leadership
- Strategic Leadership
- Developing Organizational Talent
- Individual Leadership (Influence)
- Meeting Leadership (Facilitation)
- Meeting Membership
- Team Influence (Influence)
- Teamwork (Cooperation)
- Sensitivity
- Collaboration

Planning and Organizing Dimension
- Planning and Organizing (Work Management)

Decision Making Dimensions
- Analysis (Problem Identification)
- Judgment (Problem Solution)

Performance Management Dimensions
- Delegation of Authority and Responsibility
- Follow-up
- Information Monitoring
- Maximizing Performance

Communication Dimensions
- Oral Communication
- Oral Presentation
- Listening
- Written Communication — General
- Written Communication — Formal

Personal Dimensions
- Initiative
- Career Ambition
- Long-range Goal Orientation
- Tolerance for Stress
- Impact
- Rapport Building
- Customer Service Orientation
- Ability to Learn (Applied Learning)
- Sense of Urgency (Responsiveness) (Customer Responsiveness)
- Adaptability
- Range of Interests
- Attention to Detail
- Integrity
- Energy
- Production Proficiency
- Resilience
- Tenacity
- Self-assessment
- Self-confidence

Motivation Fit Dimensions
- Job Fit
- Organizational Fit
- Location Fit
- Work Standards

Knowledge/Skill Dimensions
- Technical/Professional Knowledge
- Technical/Professional Proficiency

Fitness for Work
- Physical Health
- Mental Health

Source: Byham (1990:7)

Appendix 5.3

Dulewicz's Supra-Competences: Short Definitions of 12 Independent Performance Factors

INTELLECTUAL

1. Strategic perspective Rises above the detail to see the broader issues and implications; takes account of wide-ranging influences and situations both inside and outside the organisation before planning or acting.

2. Analysis & judgment Seeks all relevant information; identifies problems, relates relevant data and identifies causes; assimilates numerical data accurately and makes sensible interpretations; work is precise and methodical, and relevant detail is not overlooked. Makes decisions based on logical assumptions that reflect factual information.

3. Planning & organising Plans priorities, assignments and the allocation of resources; organises resources efficiently and effectively, delegating work to the appropriate staff.

INTERPERSONAL

4. Managing staff Adopts appropriate styles for achieving group objectives; monitors and evaluates their work; shows vision and inspiration; develops the skills and competencies of staff.

5. Persuasiveness Influences and persuades others to give their agreement and commitment; in face of conflict, uses personal influence to communicate proposals, to reach bases for compromise and to reach an agreement.

6. Assertiveness & decisiveness Ascendant, forceful dealing with others; can take charge; is willing to take risks and seek new experiences; is decisive, ready to take decisions even on limited information.

7. Interpersonal sensitivity Shows consideration for the needs and feelings of others; listens dispassionately, is not selective, recalls key points and takes account of them; is flexible when dealing with others, will change own position when others' proposals warrant it.

8. Oral communication Fluent, speaks clearly and audibly, with good diction; in formal presentations, is enthusiastic and lively, tailors content to audience's level of understanding.

RESILIENCE & ADAPTABILITY

9. Resilience & adaptability Adapts behaviour to new situations; resilient, maintains effectiveness in face of adversity or unfairness. Performance remains stable when under pressure or opposition; does not become irritable and anxious, retains composure.

RESULTS-ORIENTATION

10. Energy & initiative Makes a strong, positive impression, has authority and credibility; is a self-starter and originator, actively influences events to achieve goals, has energy and vitality, maintains high level of activity and produces a high level of output.

11. Achievement-motivation Sets demanding goals for self and for others, and is dissatisfied with average performance; makes full use of own time and resources; sees a task through to completion, irrespective of obstacles and setbacks.

12. Business sense Identifies opportunities which will increase sales or profits; selects and exploits those activities which will result in the largest returns.

Source: Dulewicz (1994:23)

Appendix 5.4

Factor Loadings on Dulewicz's Supra-Competences

I: Intellectual	
1. Strategic Perspective:	Helicopter .68
	Organisational Awareness .75
	Extra-organisational Awareness .78
2. Analysis & Judgment:	Information Collection .74
	Problem Analysis .78
	Numerical Interpretation .64
	Judgment .52
3. Planning & Organising:	Planning .79
	Organising .72
II: Interpersonal	
4. Managing Staff:	Appraisal .58
	Development of Staff .82
	Motivating Others .67
	Leadership .61
5. Persuasiveness:	Persuasiveness .64
	Negotiating .77
6. Assertiveness & Decisiveness:	Risk-taking .58
	Decisiveness .82
	Ascendancy .55
7. Interpersonal Sensitivity:	Perceptive Listening .52
	Sensitivity .51
	Flexibility .72
8. Oral Communication:	Oral Expression .70
	Oral Presentation .78
III: Resilience & Adaptability	
9. Resilience & Adaptability:	Stress Tolerance .73
	Adaptability .50
	Resilience .81
IV: Results-Orientation	
10. Energy & Initiative:	Impact .82
	Energy .57
	Initiative .56
11. Achievement-Motivation:	Self-Management .55
	Achievement Orientation .51
	Tenacity .68
12. Business Sense:	Business Sense .83

Source: Dulewicz (1994:24)

Comparison of General Manager Competency Models

Boyatzis (1982) Executive Level Managers	*Spencer & Spencer (1993) Top Performing Executives*	*Byham (1990) Executive Level Dimensions*	*Cox & Cooper (1988) Chief Executives/Managing Directors*	*Kotter (1982) General Managers*
Intellectual Attributes				
Diagnostic use of concepts Proactivity Conceptualisation Perceptual Objectivity	Organization Awareness	Strategic leadership Planning & Organizing Analysis Judgement Delegation Information monitoring Range of interests	Very effective analysis and problem solving skills Intuition Creativity	Above average intelligence Broad interests
Interpersonal Attributes				
Concern with impact Use of oral presentations Developing others Managing group process	Relationship building	Visionary leadership Developing organisational talent Individual leadership Meeting leadership Sensitivity Collaboration Oral communication Oral presentation Listening Written communication	(Balanced task/personal orientation) (Tendency to be authoritarian)	Personable Likes power Good at developing relationships Unusual ability to relate to a diverse group of business specialists

Appendix 5.5 (Continued)

Boyatzis (1982) Executive Level Managers	*Spencer & Spencer (1993) Top Performing Executives*	*Byham (1990) Executive Level Dimensions*	*Cox & Cooper (1988) Chief Executives/Managing Directors*	*Kotter (1982) General Managers*
Resilience & Adaptability				
Self-confidence		Tolerance for stress Adaptabilty Integrity (?) Self-assessment (?) Self-confidence	Integrity (?)	Self-reliance Emotionally even
Results Orientation				
Efficiency orientation	Achievement orientation	Follow-up Maximising performance Initiative Long range goal orientation Impact Energy Tenacity	Achievement Enthusiasm Energy	Initiative

Appendix 6.1

example

JOB ACCOUNTABILITIES

Managing Director

1. Develop and gain approval to annual plans and budgets designed to maximize current profit achievement and longer term profit growth.

2. Monitor through regular management review performance against plans taking immediate corrective action if the two diverge.

3. Ensure that the markets for the businesses products, both in the UK and overseas, are known and profitably exploited and after sales service satisfies customer requirements.

4. Ensure that the business products are manufactured, stocked and distributed in the most cost effective manner, in line with customer requirements and incorporating best available technologies.

5. Ensure the development of a stream of new products which will anticipate or satisfy customer requirements and incorporate the latest available base materials and technology.

6. Ensure that the business has and operates financial and management information systems in line with its current and foreseen needs for internal control and Group reporting.

7. Ensure that the units organisation matches its business needs and its employees are developed and trained to meet or exceed their job requirements and operate in a constructive employee relations climate.

8. Maintain individually, and with the chief executive, contracts with major suppliers, customers, competitors, trade associations designed to safeguard the company's interests and contribute towards a customer view of the industry and the company in line with their established strengths.

9. Maintain and develop good working relationships with other Glynwed Group companies designed to ensure that all available commercial opportunities are known and exploited.

Source: Hay Management Consultants (1986)

Appendix 6.2

MAJOR PROBLEM SOLVING DIMENSIONS

Problem analysis. Identifying problems, seeking relevant information, recognising important information and identifying possible causes of problems. Examples are:

(a) Seeking out data from different sources as to the causes and effect of problems;
(b) Being able to see all points of view and weigh them up accordingly;
(c) Develop and consider alternative solutions to problems.

Attention to detail. Thorough approach to a task through concern for all the areas involved, no matter how small. Examples are:

(a) Taking account of detailed quantitative information on a problem, as well as the broader picture;
(b) Making no ommissions when analysing or implementing a solution;
(c) Concern for the detailed interaction of technical, administrative and human aspects of a problem.

Decisiveness. Crispness and firmness in forming judgements and making decisions for action. Examples are:

(a) Not sitting on the fence or deferring decisions unnecessarily;
(b) Clear understanding of own objectives and priorities and knowing what needs to be done;
(c) Stating decisions and proposals clearly and unambiguously.

Judgement. Standing back from a problem situation, evaluating information and settling on courses of action which are logical and rational. Examples are:

(a) Making decisions which are in the best interests of the organisation;
(b) Not allowing personal preferences, likes or dislikes to influence judgements unduly;
(c) Giving clear reasons for making decisions.

Flexibility/Adaptability. Modifying behaviour in the light of new information or changed circumstances to ensure effective achievement of a goal. Examples are:

(a) Responding quickly when new information becomes available or situations change;
(b) Incorporating other people's ideas and suggestions in one's work;
(c) Revising plans and approach when circumstances make impossible to achieve one's original goal.

Initiative. Actively influencing events rather than passively accepting things as they are; seeing opportunities and acting on them. Examples are:

(a) Putting forward ideas, suggestions and proposals when tackling a problem;
(b) Getting on with resolving problems without direction;
(c) Bringing problems or information to the attention of others who are involved.

Risk taking. Taking or initiating action which involves a deliberate gamble in order to gain a recognised benefit or objective; this involves weighing the consequences of action, and calculating the extent to which the risks are outweighed by the possible advantages. Examples are:

(a) Initiating discussion about the consequences of failure;
(b) Consideration of a wide range of alternative strategies for the achievement of objectives;
(c) Emphasising the possible benefits of courses of action where risks are involved.

Stress tolerance. Stability of performance under pressure and opposition; ability to control emotions and make controlled responses in stressful situations. Examples are:

(a) Not giving in when opposition or difficulties appear;
(b) Responding constructively when conflict arises;
(c) Reliability in achieving objectives.

Tenacity. Staying with a problem, objective, or line of thought until the matter is settled. Examples are:

(a) Pursuing tasks until they are completed, not letting things slide;
(b) Not shrinking from tackling problems;
(c) Achieving objectives in the timescales laid down.

Appendix 6.2

MAJOR PROBLEM SOLVING DIMENSIONS (continued)

Interpersonal sensitivity/listening. Accurate perception of others' needs, feelings and views; awareness of one's own impact on others; taking others' feelings into account when determining one's behaviour. Examples are:

(a) Listening and taking account of others' points of view;
(b) Demonstrating concern for others;
(c) Ability to discuss one's own relationships directly with others.

Persuasiveness/Verbal communication. Clear presentation of ideas or facts to others and ability to convince others, whether in one to one or group interactions, or formal or informal situations. Examples are:

(a) Skill in verbal expression and clarity in presentation of information, ideas or arguments;
(b) Ability to present arguments logically and in context;
(c) Ability to evoke positive responses from others.

Leadership. Developing team work and using available resources to the full in order to achieve objectives; this can apply to groups over which the individual may or may not have formal authority. Examples are:

(a) Clarifying objectives and allocating tasks to individuals;
(b) Recognising the achievements of others and developing unity and purpose in the group, department or organisation;
(c) Being invited by others to provide direction and co-ordination.

Delegation. Effective use of human resources and staff functions., knowledge of when, how and to whom to delegate. Examples are:

(a) Involving people in decisions to gain their commitment;
(b) Actively developing subordinates by delegating tasks;
(c) Full awareness of the workload of subordinates.

Planning and organising. Establishing appropriate course of action for oneself and for others in order to achieve one's aims; this may refer to strategic planning and may include the utilisation of time, resources, etc. Examples are:

(a) Setting priorities which take account of the short and long-term needs of the business;
(b) Anticipating problems and considering the consequences of one's plans on other areas;
(c) Having a reputation for getting things done and meeting deadlines.

Management control. Creating and using controls over processes, people, and tasks; this can operate in formal or advisory situations and include overall standards as well as specific activities. Examples are:

(a) Setting up information and control systems and using them effectively;
(b) Regularly monitoring plans and progress and following up any actions taken;
(c) Setting standards for performance and keeping them under review.

Written Communication. Clear expression of ideas in writing, in a form appropriate to the situation. Examples are:

(a) Clear, unambiguous written work;
(b) Concise presentation of ideas, arguments and information;
(c) Use of language and style appropriate to the context and intended recipients.

Source: Wellin (1984:42-45)

Appendix 6.3

Glynwed Management Skill Grid (1)

COLUMN A	COLUMN B									COLUMN C
RATING 1 DESCRIPTION	1	2	3	4	5	6	7	8	9	RATING 5 DESCRIPTION
The person most likely to										The person least likely to .....
... consider facts from a number of sources before coming to a conclusion										... consider facts from a number of sources before coming to a conclusion
... want to know the detailed aspects of any issue										... want to know the detailed aspects of any issue
... sit on the fence or defer decisions unnecessarily										... sit on the fence or defer decisions unnecessarily
... give clear reasons for making decisions										... give clear reasons for making decisions
... incorporate other peoples ideas/ suggestions in his work										... incorporate other peoples ideas/ suggestions in his work
... put forward ideas, suggestions and proposals for tackling an issue										... put forward ideas, suggestions and proposals for tackling an issue
... take a calculated gamble to achieve an objective										... take a calculated gamble to achieve an objective

Appendix 6.3

Glynwed Management Skill Grid (2)

COLUMN A	COLUMN B									COLUMN C
RATING 1 DESCRIPTION	1	2	3	4	5	6	7	8	9	RATING 5 DESCRIPTION
The person most likely to										The person least likely to .....
... give in when opposition or difficulties appear										... give in when opposition or difficulties appear
... achieve objectives within the agreed time scale										... achieve objectives within the agreed time scale
... listen and take account of the others point of view										... listen and take account of the others point of view
... get positive responses from others										... get positive responses from others
... develop unity and purpose in a group										... develop unity and purpose in a group
... involve colleagues and subordinates when making decisions										... involve colleagues and subordinates when making decisions
... 'get things done' and meet deadlines										... 'get things done' and meet deadlines

Appendix 6.3

Glynwed Management Skill Grid (3)

COLUMN A	COLUMN B									COLUMN C
RATING 1 DESCRIPTION	1	2	3	4	5	6	7	8	9	RATING 5 DESCRIPTION
The person most likely to										The person least likely to .....
... know if something in his operation was going wrong and be doing something about it										... know if something in his operation was going wrong and be doing something about it
... produce written work in a language or style suited to the occasion										... produce written work in a language or style suited to the occasion

Appendix 6.4

GENERAL INTERACTION CATEGORIES

CATEGORY	*DEFINITION*	*EXAMPLES*
PROPOSING	A behaviour which puts forward a new suggestion, course of action.	"Let's deal with that one tomorrow." "I suggest that we reduce the number of security guards by 15 per cent."
BUILDING	A behaviour usually in the form of a proposal, which extends or develops a proposal made by another person.	".. and your plan would be even better if we added a second reporting stage." "You suggest that we should try to raise money to buy now. Let me make some suggestions about how we might raise that money." "If I can take that further, we could also use the system to give us better cost control."
SUPPORTING	A behaviour which makes a conscious and direct declaration of agreement or Support for their concepts and opinions,	"Yes, I go along with that." "Sounds OK by me." "Fine." "I accept that."
DISAGREEING	A behaviour which states a direct disagreement or which raises obstacles and objections to another persons concepts or opinions. N.B. Disagreeing is about issues.	"No, I don't agree with..." "I don't like the idea one bit." "Your third point just isn't true." "What you're suggesting just won't work."
DEFENDING/ ATTACKING	A behaviour which attacks another person, either directly or by defensiveness. Defending/attacking behaviours usually involve value judgements and often contain emotional overtones. They are usually about ***people,*** not issues.	"That's stupid." ". and your third point is either incompetence or a lie designed to damage and denigrate!" "Don't blame me, its not ***my*** fault; it's ***his*** responsibility.

Appendix 6.4 (continued)

TESTING UNDER-STANDING	A behaviour which seeks to establish whether or not an earlier contribution has been understood	"Can I just check to be sure we're talking about the same thing here?" "Does that mean that you want to...
SUMMARIZING	A behaviour which summarizes or otherwise restates, in a compact form, the content of previous discussions or events.	"So far, we have agreed (a) to lake legal action (b) to take it e May (c) to issue a writ in the chairman's name".
SEEKING INFORMATION	A behaviour which seeks facts, opinions, or clarification from another person.	"what's the time?" "Can anyone tell me which page this is on?" "Have you checked that thoroughly?"
GIVING INFORMATION	A behaviour which offers facts, opinions or clarification to other people.	"I remember a case like that last year". "There's at least 3 down there".
BRINGING IN	A behaviour which invites views or opinions from a member of the group who is not actively participating.	"Jane, have you anything to say on this one?" "Karl has been very quiet. I wonder whether he has anything he would like to say here."
SHUTTING OUT	A behaviour which excludes another person or reduces their opportunity to contribute.	John: "what does Bob feel?" Karl: "what I feel is..." Karl is here shutting out Bob. However, **INTERRUPTING** is the most common form of shutting out.

Source: Rackham. N. (1978: 11-12)

Appendix 6.5

16PF Primary source Traits

FACTOR	LOW STEN SCORE DESCRIPTION (1-3)	HIGH STEN SCORE DESCRIPTION (8-10)
A	*Cool*, reserved, impersonal, detached, formal, aloof	*Warm*, outgoing, kindly, easygoing, participating, likes people
B	*Concrete-thinking*, less intelligent	*Abstract-thinking*, more intelligent, bright
C	*Affected by feelings*, emotionally less stable, easily annoyed	*Emotionally stable*, mature, faces reality, calm
E	*Submissive*, humble, mild, easily led, accommodating	*Dominant*, assertive, aggressive, stubborn, competitive, bossy
F	*Sober*, restrained, prudent, taciturn, serious	*Enthusiastic*, spontaneous, heedless, expressive, cheerful
G	*Expedient*, disregards rules, self-indulgent	*Conscientious*, conforming, moralistic, staid, rule-bound
H	*Shy*, threat-sensitive, timid, hesitant, intimidated	*Bold*, venturesome, uninhibited, can take stress
I	*Tough-minded*, self-reliant, no-nonsense, rough, realistic	*Tender-minded*, sensitive, overprotected, intuitive, refined
L	*Trusting*, accepting conditions, easy to get on with	*Suspicious*, hard to fool, distrustful, sceptical
M	*Practical*, concerned with "down-to-earth" issues, steady	*Imaginative*, absent-minded, absorbed in thought, impractical
N	*Forthright*, unpretentious, open, genuine, artless	*Shrewd*, polished, socially aware, diplomatic, calculating
O	*Self-assured*, secure, feels free of guilt, untroubled, self-satisfied	*Apprehensive*, self-blaming, guilt-prone, insecure, worrying
Q_1	*Conservative*, respecting traditional ideas	*Experimenting*, liberal, critical, open to change
Q_2	*Group-oriented* a "joiner" and sound follower, listens to others	*Self sufficient*, resourceful, prefers own decisions
Q_3	*Undisciplined self-conflict*, lax, careless of social rules	*Following self-image*, socially precise, compulsive
Q_4	*Relaxed*, tranquil, composed, has low drive, unfrustrated	*Tense*, frustrated, overwrought, has high drive

Source: IPAT Staff (1986:6)

Appendix 7.1
Correlations Between 2 Years' Accountability Ratings

css/pc: basic stats	Correlations r(x,y) N. of CASES = 38 [from 46] (MD casewise deleted)									
standard mode	RES1	CTL1	TM1	DEV1	CTC1	RES2	CTL2	TM2	DEV2	CTC2
RES1	1.00	.03	.26	.22	.08	.65	.03	.28	-.28	.14
CTL1	.03	1.00	.07	.23	.14	.32	.39	-.10	.35	.08
TM1	.26	.07	1.00	-.07	.14	.37	.37	.74	.07	.15
DEV1	.22	.23	-.07	1.00	.37	.24	.13	-.12	.23	.06
CTC1	.08	.14	.14	.37	1.00	.26	.25	.07	.13	.29
RES2	.65	.32	.37	.24	.26	1.00	.24	.39	.08	.31
CTL2	.03	.39	.37	.13	.25	.24	1.00	.19	.35	.39
TM2	.28	-.10	.74	-.12	.07	.39	.19	1.00	.11	.09
DEV2	-.28	.35	.07	.23	.13	.08	.35	.11	1.00	-.04
CTC2	.14	.08	.15	.06	.29	.31	.39	.09	-.04	1.00

Key	
RES	Short Term Results
CTL	Control
TM	Team Building
DEV	Business Development
CTC	Contacts
1	Year 1 Ratings
2	Year 2 Ratings

Appendix 7.2
Correlation Matrices of Overall Performance Measures and Accountability Ratings

Table A: Uninflated Matrix

css/pc: basic stats	Correlations r(x,y) N. of CASES = 84 (MD pairwise deleted)							
standard mode	OAR	FIVE	JBSZ	RES	CTL	TM	DEV	CTC
OAR	1.00	.64	.13	.62	.68	.31	.42	.27
FIVE	.64	1.00	.49	.39	.39	.46	.36	.47
JBSZ	.13	.49	1.00	-.02	.21	.24	.03	.26
RES	.62	.39	-.02	1.00	.29	.22	.22	.18
CTL	.68	.39	.21	.29	1.00	.09	.31	.17
TM	.31	.46	.24	.22	.09	1.00	-.10	.17
DEV	.42	.36	.03	.22	.31	-.10	1.00	.25
CTC	.27	.47	.26	.18	.17	.17	.25	1.00

Table B: Matrix Inflated with Multiple OER Cases (see pp59,61)

css/pc: basic stats	Correlations r(x,y) N. of CASES = 99 [from 112] (MD pairwise deleted)									
standard mode	OAR	FIVE	OER	JBSZ	IOS	RES	CTL	TM	DEV	CTC
OAR	1.00	.59	.22	.06	.76	.63	.66	.30	.38	.17
FIVE	.59	1.00	.50	.47	.85	.32	.36	.47	.34	.46
OER	.22	.50	1.00	.44	.73	.15	.17	-.17	.27	.12
JBSZ	.06	.47	.44	1.00	.70	-.12	.19	.14	.09	.32
IOS	.76	.85	.73	.70	1.00	.37	.50	.30	.39	.41
RES	.63	.32	.15	-.12	.37	1.00	.25	.24	.19	.07
CTL	.66	.36	.17	.19	.50	.25	1.00	.08	.26	.13
TM	.30	.47	-.17	.14	.30	.24	.08	1.00	-.11	.14
DEV	.38	.34	.27	.09	.39	.19	.26	-.11	1.00	.27
CTC	.17	.46	.12	.32	.41	.07	.13	.14	.27	1.00

Key	
OAR	Overall Appraisal Rating
FIVE	5 Year Appraisal Average
OER	Overall Effectiveness Rating
JBSZ	Job Size
IOS	Index of Overall Success
RES	Short Term Results
CTL	Control
TM	Team Building
DEV	Business Development
CTC	Contacts

Appendix 8.1
Glynwed Skill-Level Competency Ratings

Competency	*Ratings*					*Mean*	*Standard Deviation*
	1	*2*	*3*	*4*	*5*		
1	17	9	21	15	14	3.00	1.40
2	11	11	20	19	15	3.21	1.32
3	15	12	19	15	15	3.04	1.40
4	16	12	15	17	16	3.07	1.45
5	11	11	18	20	16	3.25	1.34
6	13	8	24	16	15	3.16	1.34
7	11	8	21	19	17	3.30	1.33
8	15	10	18	16	17	3.13	1.43
9	13	7	17	22	17	3.30	1.38
10	13	8	13	22	20	3.37	1.42
11	13	10	15	21	17	3.25	1.40
12	11	7	27	16	15	3.22	1.28
13	11	12	20	21	12	3.14	1.28
14	10	7	23	19	17	3.34	1.29
15	11	8	14	20	23	3.47	1.40
16	13	15	16	14	18	3.12	1.42
OER	10	12	22	16	16	3.21	1.31

The Glynwed Skill-Level Competency Definitions

1. Considering facts from a number of sources before coming to a conclusion
2. Wanting to know the detailed aspects of any issue
3. Sitting on the fence or deferring decisions unnecessarily (Reversed)
4. Giving clear reasons for making decisions
5. Incorporating other people's ideas/suggestions into his/her work
6. Putting forward ideas, suggestions and proposals for tackling an issue
7. Taking a calculated gamble to achieve an objective
8. Giving in when opposition or difficulties appear (Reversed)
9. Achieving objectives within the agreed time scale
10. Listening and taking account of the others' point of view
11. Getting positive responses from others
12. Developing unity and purpose in a group
13. Involving colleagues and subordinates when making decisions
14. 'Getting things done' and meeting deadlines
15. Knowing if something in his/her operation was going wrong and be doing something about it
16. Producing written work in a language or style suited to the occasion

OER= Overall Effectiveness Rating

Appendix 8.2
Correlation Matrix of Overall Performance Measures, Accountability Ratings and Skill-Level competency Ratings

css/pc: basic stats	Correlations r(x,y) N. of CASES = 99 [from 112] (MD pairwise deleted)									
standard mode	OAR	FIVE	OER	JBSZ	IOS	RES	CTL	TM	DEV	CTC
OAR	1.00	.59	.22	.06	.76	.63	.66	.30	.38	.17
FIVE	.59	1.00	.50	.47	.85	.32	.36	.47	.34	.46
OER	.22	.50	1.00	.44	.73	.15	.17	-.17	.27	.12
JBSZ	.06	.47	.44	1.00	.70	-.12	.19	.14	.09	.32
IOS	.76	.85	.73	.70	1.00	.37	.50	.30	.39	.41
RES	.63	.32	.15	-.12	.37	1.00	.25	.24	.19	.07
CTL	.66	.36	.17	.19	.50	.25	1.00	.08	.26	.13
TM	.30	.47	-.17	.14	.30	.24	.08	1.00	-.11	.14
DEV	.38	.34	.27	.09	.39	.19	.26	-.11	1.00	.27
CTC	.17	.46	.12	.32	.41	.07	.13	.14	.27	1.00
CMP1	.16	.38	.56	.39	.54	.03	.16	.00	-.14	.25
CMP2	.03	.24	.28	.21	.30	-.06	-.07	.15	-.16	.31
CMP3	.01	.07	.19	.22	.24	-.15	.20	-.00	-.20	.16
CMP4	.04	.22	.47	.29	.41	-.02	.02	.00	-.17	.17
CMP5	.07	.12	.31	.09	.25	.01	.01	.06	.18	.04
CMP6	.31	.34	.53	.42	.56	.10	.28	-.06	.23	.31
CMP7	-.12	.00	.16	.20	.13	-.11	.08	-.03	-.02	-.07
CMP8	.07	.11	.42	.33	.33	-.03	.09	.08	-.32	.08
CMP9	.02	.36	.55	.28	.52	-.11	-.05	-.26	.19	.04
CP10	-.04	.18	.34	.08	.28	-.03	-.17	.03	.16	-.00
CP11	.22	.39	.66	.37	.60	.05	.19	-.00	.12	.14
CP12	.05	.28	.48	.23	.44	.01	.13	.02	-.11	.04
CP13	-.09	.26	.56	.19	.38	.08	-.22	-.01	-.05	-.08
CP14	.20	.38	.49	.34	.56	.01	.16	-.05	.07	.26
CP15	.23	.39	.57	.23	.57	.14	.02	-.10	.24	.28
CP16	.03	.21	.39	.26	.34	-.11	.05	-.08	-.03	.28

(for definitions see Appendix 7.2 for Overall Performance Measures and Accountabilities and Appendix 8.1 for Skills)

Appendix 9.1
Correlation Matrices of Interactive Behaviours, Overall Performance Measures, Accountability Ratings and Skill-Level competency Ratings

Table A: Uninflated Matrix

css/pc: basic stats	Correlations r(x,y) N. of CASES = 84 (MD pairwise deleted)										
standard mode	PRPG	BLDG	SPPG	DSAG	TSTG	SMNG	SKNG	GVNG	SHTG	BRNG	TLPH
OAR	-.06	-.00	.16	.10	-.25	-.55	-.28	-.08	.03	.00	-.14
FIVE	.02	-.04	.22	.10	-.02	-.07	-.14	-.04	-.16	.11	-.02
JBSZ	.36	-.03	.34	.19	.36	.39	.15	.25	.10	.29	.39
RES	-.08	-.17	.03	-.14	-.06	-.35	-.37	-.26	.24	-.29	-.27
CTL	.03	-.12	.08	.20	-.01	-.34	-.03	.07	.22	-.01	.04
TM	.33	.23	-.08	.08	.20	.07	.08	.31	.22	.27	.30
DEV	.08	-.09	.06	.28	-.36	-.26	-.05	.16	.20	.25	.06
CTC	.06	-.22	-.09	-.11	.03	.01	.22	.08	.10	.01	.09

Table B: Matrix Inflated with Multiple OER/Skill Ratings Cases (see pp59,61)

css/pc: basic stats	Correlations r(x,y) N. of CASES = 93 [from 112] (MD pairwise deleted)										
standard mode	PRPG	BLDG	SPPG	DSAG	TSTG	SMNG	SKNG	GVNG	SHTG	BRNG	TLPH
OER	.10	.06	.24	.11	.34	.35	.11	-.04	-.28	.16	.14
IOS	.06	-.06	.32	.11	.13	.10	-.07	-.07	-.22	.17	.04
CMP1	-.05	.05	-.23	.20	.35	.15	.11	.05	-.31	-.04	.08
CMP2	-.03	.09	-.28	.06	.17	.07	.20	.14	-.18	.10	.11
CMP3	.21	.08	.15	.28	.26	.23	.08	.28	.03	-.01	.32
CMP4	.11	.27	-.04	.27	.37	.19	.19	.26	-.06	.04	.30
CMP5	.15	.33	.22	.01	.14	.13	.16	.11	-.04	.03	.20
CMP6	.14	.19	.25	.31	.28	.22	.01	.03	-.16	.07	.16
CMP7	.21	.01	.21	.19	.22	.22	.08	.12	.21	.12	.23
CMP8	.15	-.02	.16	.12	.23	.25	.01	.12	-.08	.06	.18
CMP9	.13	.27	.35	.22	.07	.21	-.06	.02	-.05	.08	.11
CP10	-.03	.29	.21	-.02	.12	.00	.17	-.03	-.16	.01	.07
CP11	.17	.11	.24	.19	.22	.31	.04	-.03	-.25	.10	.12
CP12	.12	.20	.13	.23	.29	.23	.04	.09	-.12	-.02	.17
CP13	.03	.27	.13	.05	.19	.21	-.02	.00	-.15	.03	.07
CP14	.21	.29	.29	.31	.17	.20	-.01	.08	-.03	.04	.18
CP15	-.03	.04	.26	.10	.01	.06	-.16	-.24	-.23	-.01	-.15
CP16	.07	.14	-.07	.17	.32	.24	.28	.23	-.10	.12	.27

Key

Prpg=Proposing; BLDG=Building; SPPG=Supporting: DSAG=Disagreeing: TSTG=Testing Understanding; SUMG=Summarising; SKNG=Seeking Information; GVNG=Giving Information; SHTG=Shutting Out; BRNG=Bringing In; TLPH=Total behaviours per hour. See Appendix 7.2 for definitions of Overall Performance Measures and Accountabilities and Appendix 8.1 for Skills

Appendix 10.1
Correlation Matrices of 16PF Primary Stens, Overall Performance Measures, Accountability Ratings, Skill-Level Competency Ratings and Interactive Behaviours

Table A: Uninflated Matrix

css/pc: basic stats	Correlations r(x,y) N. of CASES = 84 (MD pairwise deleted)																	
standard mode	A	B	C	E	F	G	H	I	L	M	N	O	Q1	Q2	Q3	Q4		
OAR	-.25	.18	.13	-.10	-.24	-.09	-.34	.07	.12	-.01	-.11	.05	-.00	-.02	-.16	.12		
FIVE	.05	.13	.06	.12	-.05	.12	-.08	.09	-.19	.20	.03	-.24	.02	.03	.10	-.13		
JBSZ	.28	.06	.08	.26	.11	.15	.20	.10	.04	.06	-.03	-.08	.06	-.21	.18	-.06		
PRPG	.02	-.17	.12	.16	.10	-.09	.05	-.19	.20	.05	-.11	-.14	.02	.04	.05	-.11		
BLDG	.04	.16	.33	-.01	.16	-.31	-.01	-.03	.02	.18	-.19	-.17	.12	-.07	-.26	-.11		
SPPG	.04	-.22	.15	.03	-.11	.05	-.15	-.11	.17	-.03	.27	-.05	.08	.06	.11	.11		
DSAG	.09	.15	.10	.07	-.02	-.15	.02	-.44	.29	-.01	-.21	-.16	.05	.20	.02	-.15		
TSTG	.29	.09	.02	.27	.13	-.16	.20	.13	.26	.35	.11	-.07	.11	-.06	-.08	.01		
SMNG	.14	-.13	-.10	.28	.33	-.03	.34	.15	.24	.21	.21	.01	.06	-.20	.01	.03		
SKNG	.22	.01	-.05	.18	.21	-.09	.11	.34	.19	.09	.24	.09	-.10	-.11	-.04	.13		
GVNG	.10	.06	.13	.10	.20	-.08	.23	.01	.28	-.02	.01	-.31	-.02	.01	-.01	-.11		
SHTG	-.13	-.26	.15	-.08	-.09	.03	-.13	-.24	.22	.12	.16	.03	-.16	.22	-.08	.06		
BRNG	.26	-.14	-.01	.19	.39	.14	.33	.24	.10	-.05	.04	.05	-.12	-.21	.09	.11		
TLPH	.18	-.00	.12	.20	.22	-.12	.21	.03	.34	.07	.08	-.22	.01	-.03	-.02	-.06		

See Appendix 7.2 for definitions of Performance Measures and Accountabilities, Appendix 8.1 for Skills and Appendix 9.1 for Interactive Behaviours

Appendix 10.1 (continued)

Correlation Matrices of 16PF Primary Stens, Overall Performance Measures, Accountability Ratings, Skill-Level Competency Ratings and Interactive Behaviours

Table B: Matrix Inflated with Multiple OER/Skill Ratings Cases (see pp59,61)

css/pc: basic stats	Correlations r(x,y) N. of CASES = 99 [from 112] (MD pairwise deleted)																	
standard mode	A	B	C	E	F	G	H	I	L	M	N	O	Q1	Q2	Q3	Q4		
OER	.09	.29	.31	.15	-.07	.10	-.02	.09	.13	.14	.19	-.03	.08	.01	.22	.08		
IOS	.07	.19	.19	.18	-.05	.13	-.03	.09	-.05	.11	.10	-.13	.07	-.03	.14	-.02		
CMP1	.29	.50	.14	.08	-.09	.03	.08	.21	.05	.30	-.15	-.01	-.05	.05	.16	-.12		
CMP2	.29	.31	.03	-.10	-.08	.11	.04	.26	-.09	.37	-.04	.07	-.15	-.01	.17	-.18		
CMP3	-.10	-.05	.15	.17	-.03	.06	.00	-.03	.08	-.26	-.05	-.17	-.14	.05	.14	.05		
CMP4	.24	.48	.19	-.05	-.10	.05	.09	.10	-.01	.29	-.01	-.09	-.13	.07	.20	-.18		
CMP5	.07	.44	.02	.07	-.09	-.05	.05	.07	-.02	.33	.11	.09	.02	.05	-.08	-.07		
CMP6	.08	.30	.21	.20	-.09	-.06	.02	-.01	.13	.12	-.09	-.12	.22	-.01	-.03	.00		
CMP7	-.01	-.13	-.12	.28	.22	-.08	.21	-.17	.01	-.12	.05	.00	.06	-.08	-.12	.15		
CMP8	.09	-.02	.21	.18	.07	.03	.14	.05	.18	-.09	-.00	-.16	-.06	-.00	.23	.01		
CMP9	-.05	.19	.42	.03	-.20	.06	-.12	-.05	.03	.14	.25	-.03	.10	.16	.19	.09		
CP10	.11	.44	.12	.11	-.04	.03	.04	.00	-.08	.28	.18	-.04	.10	.10	.06	-.13		
CP11	.06	.28	.26	.04	-.06	-.07	.01	.06	.17	.15	.11	-.09	.05	.04	.20	-.02		
CP12	.04	.34	.19	.02	-.08	-.01	-.03	.04	-.08	.10	.01	-.09	-.06	.11	.15	-.05		
CP13	.23	.17	.27	.06	.09	.06	.12	.11	-.01	.25	.24	-.14	-.05	-.09	.15	-.20		
CP14	-.01	.15	.22	-.09	-.20	.03	-.11	.04	.04	.11	.04	-.08	-.01	.11	.21	.02		
CP15	.04	.20	.21	.10	-.15	.03	-.10	-.03	-.02	.06	.05	-.06	.11	.03	.14	-.01		
CP16	.24	.41	.07	.01	.04	.11	.15	.23	-.11	.30	-.10	.09	-.22	-.11	.24	-.08		

See Appendix 7.2 for definitions of Performance Measures and Accountabilities, Appendix 8.1 for Skills and Appendix 9.1 for Interactive Behaviours

Appendix 12.1
Variance in Index of Overall Success Explained by Different Classes of Independent Variable

Cases With Complete Data (N=23)

Adjusted Multiple R^2					
Class of Independent Variable	*On its Own*	*With Additional Classes of Variable*			
		Sf -Cns	**Bevs**	**Skills**	**Accs**
Self-Concepts	42**		100**	91***	89***
Behaviours	34*	100**		99***	59**
Skills	54**	91***	99***		88**
Accountabilities	26*	89***	59**	88**	
Self-Concepts + Behaviours	100**			100***	100**
Self-Concepts + Skills	91***		100***		100**
Self-Concepts + Accountabilities	89***		100**	100**	
Behaviours + Skills	99***	100***			99***
Behaviours + Accountabilities	59**	100**		99***	
Skills + Accountabilities	88**	100**	99***		
All Measures	**100***				
Decimal Points Omitted	**p<0.05; **p<0.01; ***p<0.001*				