

THE IDENTIFICATION OF MANAGEMENT POTENTIAL

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ABSTRACT

The study was undertaken in order to determine whether it would be possible to isolate certain competencies which could be used to identify individuals with management potential in a population of branch and area managers within a financial institution. The competencies selected for study were extracted from an extensive review of the relevant literature and were selected for both relevance and ease of measurement. The competencies were Locus of Control, Achievement Motivation, Cognitive skills and Interpersonal skills.

The subjects were divided into two groups on the basis of a panel assessment by senior management of the organisation. The first group consisted of those individuals who were seen as having the potential for further advancement and the second of the balance. The relevant competencies were measured for both groups.

It was found that age, time spent in current position, Control of Social relationships, a sub-factor of Locus of Control and Awareness of time, Aspiration level and Personal Excellence, sub-factors of Achievement Motivation differentiated significantly between the two groups. In addition, Cognitive and Interpersonal skills differentiated strongly between the two groups.

Contrary to expectations, subjects with potential were found to be significantly more externally controlled with respect to the factor Control of Social relationships. Possible reasons for this are explored.

Finally, it was attempted to construct a predictive model for use in identifying management potential. The model met with limited success, but was significant in that it highlighted the inadequacies of the "country-club" method of assessment.

DECLARATION

I declare that this research report is my own, unaided work. It is being submitted in partial fulfilment of the requirements for the degree of Master of Management in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.



Margaret Ruth Jenks

20th day of October 1991.

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"As we survey the path leadership theory has taken, we spot the wreckage of 'trait theory', the 'great man' theory, and the 'situationist' critique, leadership styles, functional leadership, and finally, leaderless leadership, to say nothing of bureaucratic leadership, charismatic leadership, group-centered leadership, reality-centered leadership, leadership by objective, and so on. The dialectic and reversals of emphases in this area very nearly rival the tortuous twists and turns of child-rearing practices, and one can paraphrase Gertrude Stein by saying, 'a leader is a follower is a leader'."

(Bennis, 1989, p.39)

CHAPTER 1

INTRODUCTION

This chapter covers the background and purpose of the research. It details the problem to be investigated and gives the key assumptions and definitions of the relevant terms. Finally, it outlines the limitations and constraints of the study.

1. THE BACKGROUND OF THE STUDY

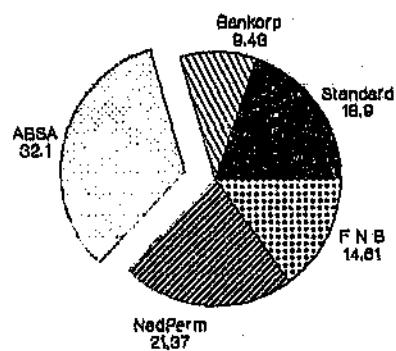
1.1 THE BANKING INDUSTRY

The timeous identification of potential managers has always been important to financial institutions. In recent years, since the breakdown of previous regulatory agreements in the banking sector, there has been an immense increase in competition amongst various financial institutions. The South African industry has to some extent lagged behind its European and American counterparts in terms of both the increasing competitiveness the growing pressure on margins. This has been due largely to the relative isolation which South Africa has experienced over the last six years as a result of the debt standstill and financial sanctions.

The current climate, however, is one of increasing competition for scarce marketshare. Figure 1 shows the distribution of marketshare for savings and cheque deposits, amongst the major players in the banking industry. The emergence of a major player such as ABSA (Volkskas, United and Allied) has made the attainment of critical mass crucial for survival - an aspect which is clearly indicated by the relative market shares of the various conglomerates shown in Figure 1. Only those organisations which have attained this critical mass will be able to dictate the direction which the industry in general and pricing in particular, takes. In addition, competition from other non-traditional sources such as insurance companies and even retailers, is increasing pressure on the industry.

The sector is marked by shrinking margins in the traditional interest related business and a need to be innovative in the search for alternative sources of income, while at the same time increasing productivity, cutting costs and becoming leaner and trimmer. This need is emphasised further by the fact that the labour productivity index for the financial, insurance, real estate and business services has decreased from 121.0 in 1970 to 95.8 in 1990 while the unit labour cost index has increase from 15.7 to 223.5 over the same period. (National Productivity Institute, 1991). Terms such as "real-sizing" and "right-sizing" abound in the search for euphemisms for the painful process of shrinking which many organisations are facing. Rosabeth Moss Kanter (1989, p. 31) refers to this as "the ultimate corporate balancing act".

SAVINGS DEPOSITS



CHEQUE DEPOSITS

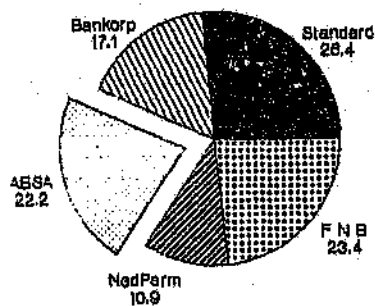


FIGURE 1: MARKETSHARE - DECEMBER 1990

STEDMAN, M. (1991). Personal communication with the author.

The increasing shortage of people with the right skills has also led to greater competition for this scarce resource. Paradoxically, at the same time that the industry is going through reductions in staff numbers, it is also locked into the search for managerial expertise and specialised skills. In 1989, the National Manpower Commission indicated that by the year 2000, there would be a total shortage of 103 000 managers and entrepreneurs (Cooper, Schindler, McCaul, Hamilton, Beale, Clemans, Kruger Delvare and Moonsamy, 1989). In addition, the commission stated that there would be 442 000 empty professional and technical positions. In the same year, the Institute for Futures Research predicted that there would be a shortage of 200 000 skilled workers by the year 2000. In both instances the implications are that there will be enormous competition for the scarce skilled people who will be available to the industry.

Mergers and acquisitions have become an integral part of the overall scenario. The formation of new, merged organisations creates additional demands for the management of change and the facilitation of the ever-elusive synergies which are required.

Information technology has become an additional change driver in the banking industry. The currency of banking is information.

Consequently, the development of banking is, in essence, the development of an information-based organisation (Drucker, 1988). The transformation of banking institutions from paper-based information processing systems to true technologically based organisations, has had a radical impact on the skills needed by managers. Managers are increasingly required to assume individual responsibility for relationships and communication to counter the potential depersonalising effects of technology. They are also required to be more autonomous and to act with increasing self-discipline. The increasing importance of information technology has also influenced the shape and structure of banking organisations, flattening traditionally hierarchical structures.

Finally, banking is an industry which has to conform with statutory requirements which are not merely local in nature, but international. This means that banks have to see themselves as global organisations which are part of the international environment. This has become even more relevant over the last year with the increasing reintegration of South Africa into the global community as well as the potential re-entry into the South African market of overseas banks.

1.2 THE REQUIREMENTS FOR MANAGERS

The identification and development of the right management talent and skill has become vital in the above context. It is a primary factor contributing to the ability of the business to compete and survive in an increasingly hostile environment. Whereas previously, much of the management of the banking industry found their way into senior positions by virtue of long tenure, the search is now on for managers who can lead the industry through a period which is increasingly characterised by rapid change, competitiveness and turbulence on a scale unthought of a decade ago.

The old style of management is no longer adequate. There is a growing need for managers who are characterised by attributes previously thought to apply to leaders only. The distinction between managers and leaders is becoming increasingly blurred as the demands on managers increase and as power and authority are devolved to all levels of the organisation. Peters (1989) has pointed to the need for leaders at all levels in the organisation. These leaders have to be able to get to grips with the fact that the familiar job of managing by planning, leading, organising and controlling has changed radically and that the skills needed to do the job effectively have consequently also undergone a revolution.

Kotter (1988) also makes a cogent case for the need for leaders at all levels in the organisation. Leadership is no longer reserved for the top echelons. Although Kotter differentiates clearly between management and leadership, he sees both as necessary and not mutually exclusive.

Kanter (1989) refers to the need for "post-entrepreneurial" management practices in which entrepreneurial creativity and flexibility are applied to existing businesses. Rank and hierarchy are no longer the overall structuring principles.

Leaders are required to be responsible for the overall effectiveness of the organisation. They have to do this by giving meaning, direction and purpose amidst chaos within the context of a set of values and principles by which the integrity of the organisation can be maintained (Bennis, 1989). Leaders at all levels have to provide an example and a vision which will sustain the organisation through the most turbulent of times (Peters, 1989).

Kotter (1990, p. 104) sums the need up very succinctly when he states that "No one has yet found how to manage people effectively into battle; they must be led."

In this context, the current study was undertaken to determine which attributes would qualify individuals to be managers in the new organisation - managers who lead rather than managers who simply manage. This would enable the early identification of these people and allow the organisation to benefit from their correct placement. The attributes identified could be used for both internal selection and external recruitment where this would be appropriate.

2. THEORETICAL FRAMEWORK

The theoretical basis offered by the competency model (Boyatzis, 1982) proved useful in providing a framework for organising the results of previous work done on the identification of attributes for predicting managerial potential. It was also used to organise the specific attributes which were selected for further study.

Boyatzis (1982, p. 12) gives the following definition of effective job performance:

"Effective performance of a job is the attainment of specific results (i.e. outcomes) required by the job through specific actions while maintaining or being consistent with policies, procedures, and conditions of the organizational environment."

Effective performance is therefore a function of the interaction between the demands of the job, the organisational environment and the individual's competencies. In particular, the degree of fit between the three components determines the degree of effectiveness achieved. Figure 2 shows the interaction of these aspects schematically.

In this framework, a competency is defined as:

"an underlying characteristic of a person which results in effective and/or superior performance in a job" (Klemp, 1930 in Boyatzis, 1982, p.20).

Competencies may be viewed in terms of both type and level. A type of competency refers to specific behaviour or actions which are the overt manifestation of an underlying

competency. The level of a competency relates to the psychological level at which it exists. The level may be unconscious (eg a motive), conscious (eg self-image) or behavioural (eg a skill). Figure 3 illustrates the interaction between job performance and these various levels of competencies.

The model therefore allows the identification of certain key competencies which relate to effective behaviour in a managerial position.

An extensive survey of the literature was undertaken to identify those competencies which appeared to be most closely related to leadership behaviour. In particular, those aspects which are measurable and quantifiable were examined in order to build these into a predictive model.

A number of key competencies were identified. These were Internal vs External Locus of Control (Rotter, 1966), Achievement Motivation (McClelland, Atkinson, Clark and Lowell, 1976), Interpersonal skills and Cognitive skills.

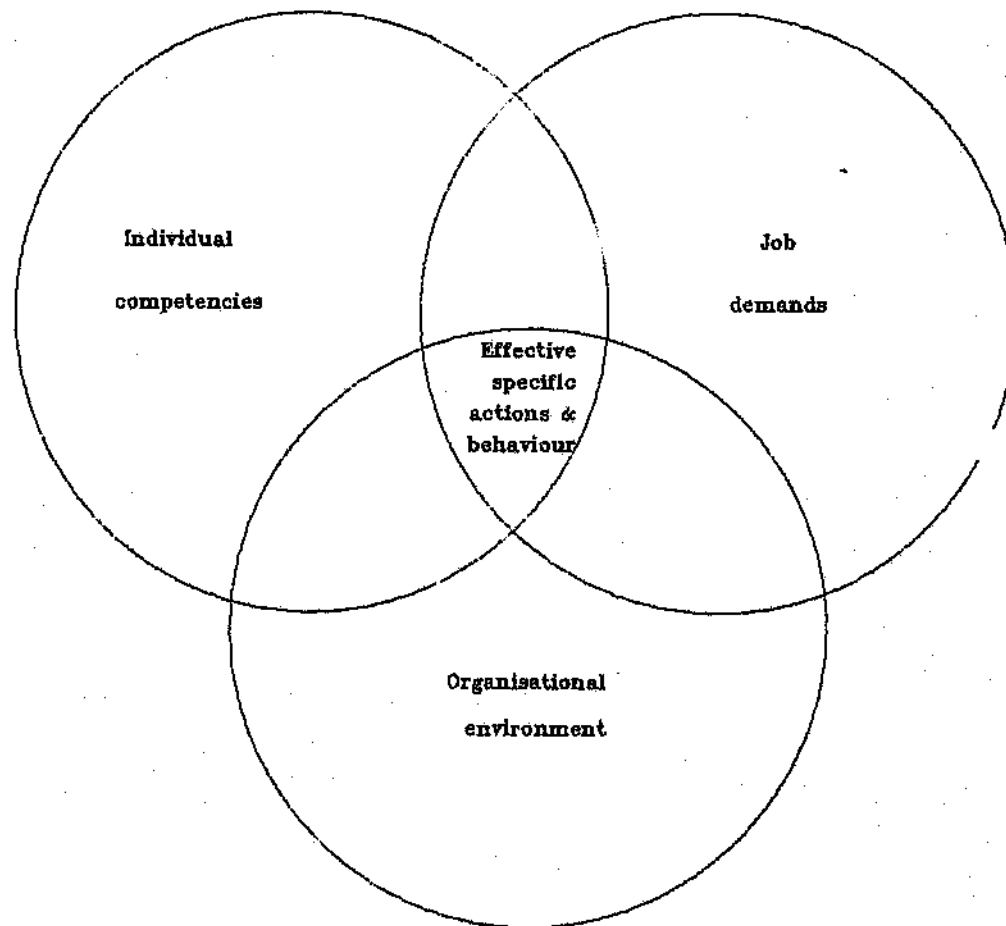


FIGURE 2: MODEL OF EFFECTIVE JOB PERFORMANCE

BOYATZIS, R. (1982). The Competent Manager:
A Model for Effective Performance.
New York: John Wiley & Sons.

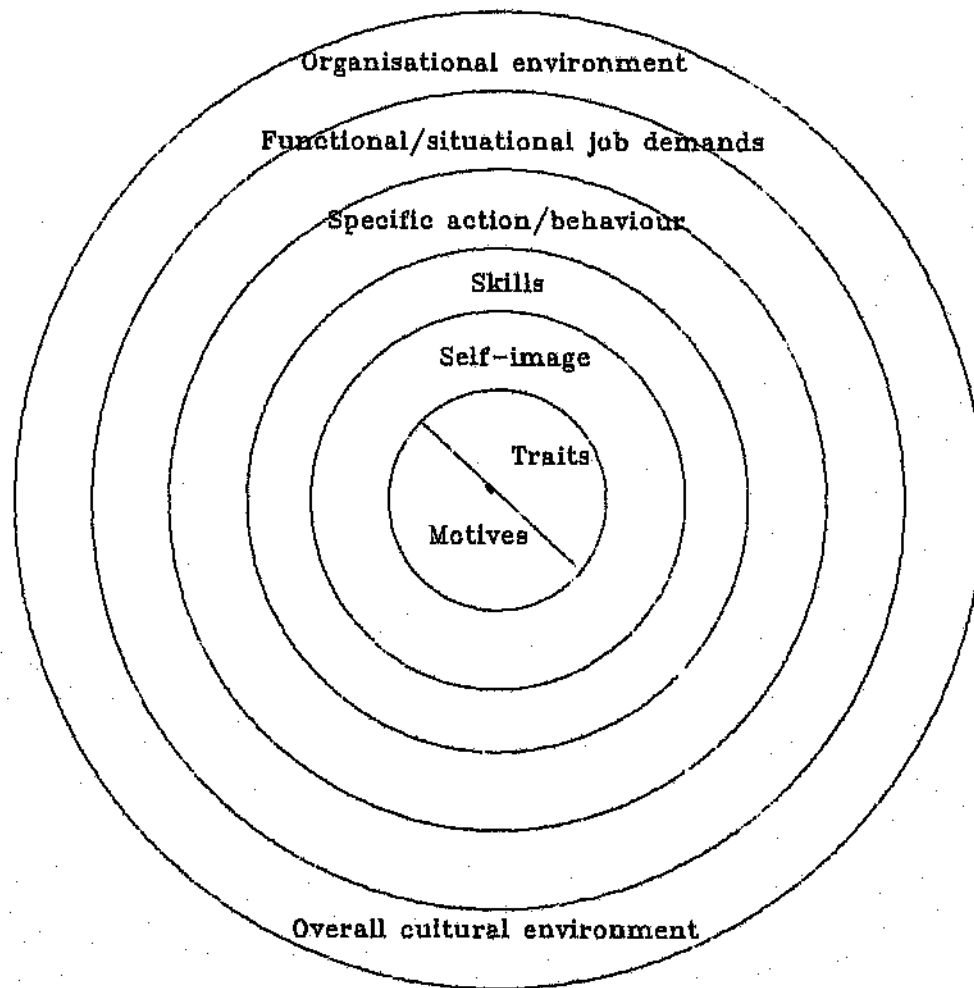


FIGURE 3: INTERACTION OF COMPONENTS OF JOB PERFORMANCE AND LEVELS OF COMPETENCIES

BOYATZIS, R. (1982). The Competent Manager:
A Model for Effective Performance.
New York: John Wiley & Sons.

3. THE PROBLEM INVESTIGATED

The study focused on the investigation of the relationship between attributes of leaders identified in the literature survey and potential for further advancement in the bank as identified by line management within the bank. In addition, it was intended to develop a predictive algorithm for the differentiation of individuals with potential from those without, based on the attributes which were found to distinguish significantly between the two populations.

The sub-problems which were investigated are:

The first sub-problem

To determine whether individuals who display management potential as identified by their superiors, perceive themselves as having an Internal rather than an External Locus of Control (Rotter, 1986).

The second sub-problem

To determine whether the above individuals have a higher need for achievement (McClelland et al, 1976) than their peers.

The third sub-problem

To determine whether the above individuals display higher performance, as measured by performance appraisal scores, in specific competencies than their peers. The competencies considered were Cognitive and Interpersonal skills.

The fourth sub-problem

To combine the measures of the above variables into a predictive model capable of differentiating between high potential candidates and others.

4. PROPOSITIONS

The following propositions were developed from the above sub-problems:

Proposition 1:

Individuals with potential will perceive themselves as having an Internal Locus of Control.

Proposition 2:

Individuals with potential are higher in Achievement Motivation than their peers.

Proposition 3:

Measures of specific effective behaviours required for competence in Cognitive and Interpersonal skills can differentiate further between individuals with potential and those without.

Proposition 4:

It is possible to differentiate between individuals with potential and those without by means of a predictive model based on Locus of Control, Achievement Motivation and Cognitive and Interpersonal skills as measured by performance levels indicated by performance appraisal scores.

An aspect of particular interest was the effect of an organisational culture such as that of the bank on the above variables. The bank has been traditionally extremely autocratic in style - the above aspects require somewhat different management styles. This is discussed further under the limitations of the study.

5. THE LIMITATIONS OF THE STUDY

The study is subject to a number of limitations. Each of these is discussed in detail.

The study was conducted within one organisation only. This impacts on the generalisability of the results.

The following support is offered for the viability of this restriction on the research:

- The study focused on building a model for the identification of potential which will operate as a pilot for further research and as such cannot be considered as definitive;
- The issue of potential has been shown to be both situationally and culturally dependent. Kerr and Jermier (1978) found that there are a number of aspects of the individual, the task and the organisation which influence the effectiveness of leaders. Variables such as the degree of formalisation, rigidity and spatial distance between superiors and subordinates, have been found to determine whether or not a specific style of leadership is successful.

Hersey and Blanchard (1982) define leadership as a process in which the efforts of individuals or groups of individuals are focused on goal achievement in a given situation. Furthermore, Burke (1987, p. 10) defines organisational culture as "the unique pattern of norms, or standards or rules of conduct, to which members conform." He points out that this encompasses authority structures and the way in which power is exercised as well as the values which are specific to the organisation. This implies that those aspects which characterise leaders may well be organisation specific. These aspects would therefore not necessarily lend themselves to generalisation.

- As has been pointed out earlier, the financial industry is intensely competitive and destined to become more so in the next decade. There is little or no co-operation and exchange of information on personnel matters. In particular, as a result of the competition for scarce human resources, access to information from other organisations is impossible.

The study investigated only staff who had already attained management positions within the organisation.

The target reference group was people who were in management positions. The intention was to

develop a model which could identify the required attributes for the promotion of people into this level of management.

The study did not extend to the development of the attributes identified.

Bennis (1989, p.5) states categorically that "leaders are made, not born, and made more by themselves than by external means." In the current study it was felt that the further investigation of how this could be facilitated fell outside the scope of the investigation. Rather the emphasis was on the basic material required for the development of potential.

The study was not an exhaustive integration of all the attributes which have been found to be relevant for leaders.

The study focused on those critical aspects which lend themselves more readily to measurement and quantification as the ultimate purpose was to differentiate the population with potential from that without.

6. DEFINITION OF TERMS

The relevant terms which require definition are:

Potential
Internal vs External locus of control
Achievement motivation
Competency
Cognitive skills
Interpersonal skills

Each of these is addressed fully in the review of the related literature. However, for the sake of completeness, the following definitions are offered here:

6.1 POTENTIAL

This was considered to be the potential of the individual to advance more than two levels beyond his current managerial level. In terms of the structure within the bank, this would mean an advance into general management in all cases.

6.2 INTERNAL VS EXTERNAL LOCUS OF CONTROL

Rotter (1966, p. 1) defined the concept as "the degree to which an individual perceives that the reward follows from, or is contingent upon, his

own behavior or attributes versus the degree to which he feels that the reward is controlled by forces outside of himself and may occur independently of his own actions." Collins (1974, p. 381) points out that "it reflects constant bias in the observer's judgments regarding the origin of the good and bad things that happen to him".

6.3 ACHIEVEMENT MOTIVATION

The construct of Achievement Motivation has been beset by a number of difficulties in definition. As will be pointed out in the literature review, this has led to a multi-dimensional view of the concept. In the current context, the definition given by Erwee and Pottas (1982, p. 85), will be used, ie "the striving for especially difficult and challenging goals supported by high personal standards of excellence."

6.4 COMPETENCY

Boyatzis (1982) defines a competency as a basic attribute of a person which allows him to perform exceptionally well in a specific job.

6.5 COGNITIVE SKILLS

Cognitive skills include analytical ability, conceptualisation, initiative, flexibility, innovativeness and the ability to keep a broad, overall picture in mind (systems thinking).

6.6 INTERPERSONAL SKILLS

Interpersonal skills reflect the general interpersonal awareness of the individual, his ability to negotiate, communicate at all levels, give direction to others and empower and develop them. The skill to work with teams is also part of the overall cluster.

7. ASSUMPTIONS

7.1 THE ASSESSMENT OF POTENTIAL

The method used for the differentiation of those individuals with potential and those without is subjective.

Leadership is considered by a number of authors to be situationally dependent and also dependent on organisational culture as was discussed

above. The criteria for leadership within an organisation may also be familiar to the members of the organisation although they may be foreign to outsiders.

In this context, the assessors used to separate the two sets of individuals were those with the greatest insight into and understanding of the organisational culture of the bank. They are also fully aware of the positioning required for the bank in the future. In addition, three independent ratings were obtained for each individual and the results pooled.

7.2 THE POPULATION ASSESSED

The study assumed that there are definitely individuals in the management population who have the potential for advancement into general management.

8. THE IMPORTANCE OF THE STUDY

Most of the studies on the competencies required for leadership have been qualitative rather than quantitative. Boyatzis' (1982) work covers a number of specific assessment methods as does a recent publication by Spangenberg (1990). However, the definition of an overall predictive model has not been attempted. The current research study was planned to highlight a possible approach which will be of value in the succession planning and selection. In addition,

the study is of key importance to the bank in providing an additional perspective on the identification of potential. This approach may serve as a screening device for other, more sensitive but also more costly approaches, such as the use of assessment centres.

9. ORGANISATION OF THE REPORT

The remainder of the report is organised as follows:

Chapter 2: The review of the related literature firstly examines previous work done on the identification of competencies which characterise leaders and managers. It then goes on to focus on the specific competencies of interest namely, Locus of Control, Achievement Motivation, Cognitive skills and Interpersonal skills. Research done on these competencies as well as the measurement of the level of these competencies displayed by individuals, is reviewed.

Chapter 3: The research methodology is described in terms of the design of the research and the instrumentation used. Finally, the data analysis methodology is detailed.

Chapter 4: Chapter Four describes the results of the research in terms of each of the formal hypotheses stated in this chapter. The results are discussed in detail.

Chapter 5: In Chapter Five, the summary, conclusions and recommendations are presented.

CHAPTER 2

THE REVIEW OF THE RELATED LITERATURE

There has been a great deal of interest in the roles and competencies of leaders and managers. This chapter reviews work done in this area. The differences between the roles and competencies required for leaders and managers is also reviewed. A number of specific competencies were selected for further analysis in this study. The definition of these competencies, work related to their role in managerial behaviour and their measurement is discussed. The area of performance appraisal as a means of assessing competence is discussed in some depth as this is an area which is generally subject to a large amount of controversy.

1. MANAGERS VS LEADERS

A number of authors have differentiated between the roles and competencies required of managers and leaders.

Warren Bennis (1989) made deductions about the differences between leaders and managers based on a series of interviews with notable leaders in a number of different walks of life. Amongst them were people as diverse as Michael McGee, athletics director for the University of Southern California and Betty Friedan, author and co-founder of the National Organization for Women. He sees the primary difference as that between "those who master the context and those who surrender to it" (Bennis, 1989, p. 44).

Zaleznik (1977, 1990) examined observations of managers and leaders as disparate as Sloan on the one hand and John F Kennedy on the other. He asserts that "managers and leaders differ fundamentally in their world views. The dimensions for assessing these differences include managers' and leaders' orientations towards their goals, their work, their human relations and their selves." (Zaleznik, 1977, p. 70).

The work of Bennis (1989), Kotter (1990) and Zaleznik (1977) is reviewed in terms of these four orientations, ie orientation towards goals, work, human relations and self.

1.1 ORIENTATION TOWARDS GOALS

Managers are seen as adopting passive, reactive, necessary goals which limit choices (Zaleznik, 1977). Managers set goals which are focused on the bottom line, seek to maintain the status quo (Bennis, 1989) and are related to the planning and budgeting process in the organisation (Kotter, 1990).

Leaders, on the other hand, strive for proactive, desirable, personal goals which shape and direct ideas and open new directions. Their goals determine the overall direction a business takes (Zaleznik, 1977). The goals develop and grow the organisation and are focused on the horizon (Bennis, 1989). They set goals which create vision and set overall directions. (Kotter, 1990).

1.2 ORIENTATION TOWARDS WORK

Managers see work as enabling. This allows some use of ideas and people to achieve various tactical goals. Rewards and punishments are used as appropriate. Managers are essentially conservative (Zaleznik, 1977). Managers administer, rely on control, ask how and when, accept the status quo and do things right within a short-term time horizon (Bennis, 1989). They cope with complexity, bringing about order and consistency and control and solve problems through deductive reasoning (Kotter, 1990).

Leaders operate from a position of risk - seeking out exposed positions from which to launch ideas and visions (Zaleznik, 1977). They have a long-range perspective, ask what and why, originate, challenge the status quo and do the right things (Bennis, 1989). They cope with change, reason inductively and actively look for linkages (Kotter, 1990).

1.3 ORIENTATION TOWARDS HUMAN RELATIONS

Managers need to work with people and tend to mediate in relationships to preserve balance and an even emotional tone. They are role-bound (Zaleznik, 1977). They organise and staff (Kotter, 1990).

Leaders inspire more extreme emotional responses and are empathic in their relationships with others. They communicate directly and create a sense of shared purpose. They set examples of personal excellence (Zaleznik, 1977). They focus on people and inspire trust (Bennis, 1989). Leaders align people and motivate, inspire and empower others. They energize people and build networks (Kotter, 1990).

1.4 ORIENTATION TOWARDS SELF

A manager is the classic good soldier (Bennis, 1989). He needs to feel that he belongs to a clearly identified group.

Leaders are people with an intense sense of themselves as individuals. They do not need to belong - they are their own people (Zaleznik, 1977; Bennis, 1989).

The qualitative nature of the differences between the two groups is summed up by Bennis (1989, p. 45) when he states that "Managers wear square hats and learn through training. Leaders wear sombreros and opt for education".

Despite these differences, the need for leadership at all levels in the organisation demands people who fulfil the requirements of both roles and have the competencies required for both roles (Peters, 1987; Kotter, 1990). Kotter (1990, p. 103) makes the point that "strong leadership with no management is no better, and is sometimes actually worse, than the reverse." Good leadership tends to lead to the reproduction of leadership throughout the organisation and the hierarchy. This generates a culture of leadership in the organisation.

2. ROLE REQUIREMENTS FOR MANAGERS

The role requirements for managers to operate as leaders in the new organisation of the nineties and beyond are varied and complex. A review of the role requirements will clarify the competencies which are required. In the competency model (Boyatzis, 1982) (Chapter 1, Figure 1) role requirements are set by both the demands of the job and the organisational environment. A number of fundamental roles which are to be fulfilled by the new manager emerge from the literature.

2.1 VISIONARY AND DESIGNER

The role of visionary and designer is seen by virtually all authors as being central to the position of leader (Zaleznik, 1990; Kotter, 1988; Ninomiya, 1988).

The central position of vision in guiding, unifying and directing the organisation is stressed in many instances. Bennis (1989, p.6) states that "the most pivotal (characteristic of leaders) was a concern with a guiding purpose, an overarching vision." Bennis and Nanus (1985, p. 18) state that "Vision is the commodity of leaders, and power is their currency".

Similarly, Rosabeth Moss Kanter (1989) stresses the need for a positive vision to unify purpose. Peters (1987) also emphasises the need to develop an inspiring vision in the organisation to allow unification and integration. Garfield (1986) refers to "missions that motivate".

The issue of a shared vision is raised in a number of ways. Peter Senge (1990) sees the building of shared vision as a primary skill requirement. He defines visioning as consisting of encouraging personal vision, communicating and asking for support, seeing this as an ongoing process, blending intrinsic and extrinsic visions and differentiating between positive and negative visions. Tichy and Devanna (1986) focus on the transformational leader - a leader who is concerned with change, innovation and entrepreneurship as against transactional leaders - leaders who manage what they find. They see one of the major roles of the transformational leader as that of a visionary - a person who is "able to dream, able to translate those dreams and images so that other people could share them" (Tichy and Devanna, 1986, p. 27). Ninomiya (1988) stresses the need for both individual and collective vision to give direction to the organisation.

2.2 COACH AND TEACHER

The role of coach and teacher for all the other team members is a further key element (Ninomiya, 1988; Rosener, 1990; Peters, 1987). Peter Senge (1990) defines a learning organisation as one in which people are continually growing and using their increased capabilities to actively shape their own future. In this type of organisation, the role of teacher and steward is essential. This role ensures ongoing self-renewal and growth. Senge (1990, p. 11) defines the role as "helping everyone in the organisation, oneself included, to gain more insightful views of current reality." It involves assisting people in the surfacing of their mental models to ensure the building of a future on a shared view of the organisation. Naisbitt and Aburdene (1990, p. 195) see a role where the leader must "coach, inspire, and gain people's commitment."

2.3 EMPOWERING OF OTHERS, ENERGISING, PARTICIPATIVE MANAGER, TEAM PLAYER

These concepts are not necessarily all synonymous, but are all related to the same cluster of role requirements (Kotter, 1990; Zaleznik, 1977; Bennis, 1989). The essence is the creation of an environment in which individual members of the team can function relatively autonomously and in which decision-making is done at the lowest logical

level. Empowerment and energising people should not be confused with some form of total licence in which anything goes - rather it is the rational sharing of power within the limits of guidelines which are determined by the overall vision of the leader in the organisation.

Naisbitt and Aburdene (1990, p.196) refer to "democratic yet demanding leadership that respects people and encourages self-management, autonomous teams, and entrepreneurial units." Rosener (1990) uses the term "Interactive" leadership and sees participation, inclusion, the sharing of power and information, energising others and enhancing their self-worth as essential components of this role.

Senge (1990) discusses the need for generative learning and creativity at all levels in the organisation as related to the role of the leader as team-builder who empowers others to function autonomously.

Bennis and Nanus (1985) refer to empowerment in terms of letting people know that they are significant and can make a difference, giving them a sense of competence or mastery, a sense of community or belonging and a sense of enjoyment or fun in their work. Kanter (1983, p. 237) states that leaders "empower subordinates, involve them and give them latitude, but they still set tough standards".

2.4 INNOVATOR AND CHANGE AGENT

Growth and development presuppose change and innovation and as such, the new organisation demands that the manager function in the role of innovator and change agent (Bennis, 1989; Garfield, 1986; Kotter, 1990; Zaleznik, 1990).

As stated above, Tichy and Devanna (1986, p. 27) see transformational leadership as being about "change, innovation and entrepreneurship." Bennis and Nanus (1985, p.217) refer to transformative leadership which "achieves significant change that reflects the community of interests of both leaders and followers; indeed, it frees up and pools the collective energies in pursuit of common goal." Kanter (1989) views change and innovation as the winning recipe for the corporate olympics.

2.5 MANAGER OF CREATIVE TENSION

A growing body of literature sees the overall and dominant role of the leader and manager as that of managing various dualities which are present within the context of the organisation and the environment. Senge (1990) refers to the need to manage the creative tension between the current reality and the vision of where the

organisation needs to be. Peters (1987, p. 391) states that living with paradox will be the effective leader's "premier trait". Organisations are "besieged by paradoxes" (Evans and Doz, 1989). Tichy and Devanna (1986, p. 29) state that "self-renewing organizations embrace paradox" and that this enables them to survive the various set-backs which they suffer as a result of the unpredictability of the environment.

A number of paradoxes are discussed by Evans and Doz (1989), Tichy and Devanna (1986) and Peters (1987). The paradox most commonly referred to is that of loose/tight couplings. The paradox requires that tighter control be achieved through the greater empowerment of people - in other words, more control paradoxically implies greater decentralisation and the granting of more authority.

The contrast between change and continuity is also especially relevant for the leader. There is a need for stability as a basis for change, to enable the organisation to carry on productively through the chaos of change. Peters (1989, p. 395) in particular, sees this as the "core paradox...fostering (creating) internal stability in order to encourage the pursuit of constant change".

Leaders also have to be able to deal with the demands for increasing specialisation on the one hand and the need to have a broad view and to be flexible on the other.

It is noteworthy that many of the previous role requirements which have been discussed have within them also the potential for this conflict and tension. The need to manage these organisational dualities and paradoxes therefore becomes an integral part of the overall role of the manager.

The roles of visionary and designer, coach and teacher, the empowerment of others and team player, innovator and change agent and ultimately the management of the tension between a large number of apparent paradoxical opposites, require a wide-ranging set of competencies for successful integration. The balance of competencies required may differ in specific situations, but there appears to be some agreement in the literature about a number of the generic competency requirements for the new leader/manager role.

3. COMPETENCIES REQUIRED FOR THE NEW MANAGERIAL ROLE

The competencies identified as relevant from the review of the literature, will be organised by using the Boyatzis (1982) model of competencies

as a framework. Many of the competencies are manifested in different ways at different levels of the model and all levels of competencies interact to produce the actual behaviour which can be seen as competent in the job situation. The review will follow the convention of identifying the competency at the lowest level possible.

3.1 THE MOTIVE/TRAIT LEVEL

Competencies at this level generally exist at the unconscious level within the individual. Motives direct behaviour towards certain desirable goals. Traits, on the other hand, are the dispositions which individuals have to respond in certain characteristic ways to generalised categories of events (Boyatzis, 1982; Spangenberg, 1990). Both of these aspects have definite consequences for performance in the work situation. A number of competencies at this level are discussed extensively in the literature.

3.1.1 ACHIEVEMENT MOTIVATION (n.Ach)

The need to strive for excellence is seen as relevant for leadership by a number of authors (Margerison and Kakabadse, 1984; Kanter, 1987, 1989; Kotter, 1982; Garfield, 1986). Kelly (1986) in a review of the literature and in

discussions with prominent South African chief executives, defined the desire to achieve success as one of the most prominent influences in the development to CEO status. Boyatzis (1982) identifies Achievement Motivation as part of a Goal/Action management cluster and relates it specifically to an efficiency orientation.

McClelland (1961) originally defined Achievement Motivation as a prerequisite for entrepreneurial development. At a later stage, however, he claimed that high levels of Achievement Motivation could be counterproductive in a managerial role (McClelland and Burnham, 1976). The argument was that in a complex organisation, an achievement oriented individual would try and do everything themselves in order to satisfy their internal drives. This would be impossible due to the constraints of the situation and would lead to ineffective functioning. If, however, one considers Kanter's (1989) view of the post-entrepreneurial organisation which requires leaders rather than managers, it again becomes an area which should be considered seriously.

3.1.2 THE NEED FOR POWER AND INFLUENCE (n.Power)

McClelland (1961) stated that in addition to the need for achievement, power motives were also required for success in management. McClelland and Burnham (1976, p. 101) elaborated further on this and identified a need for power, "a concern for influencing people", as crucial. They also

stated that this need for power has to be controlled and directed for the benefit of the organisation as a whole and not merely for the personal satisfaction of the individual. Bennis and Nanus (1985, p.15) see "the basic energy to initiate and sustain action translating intention into reality" as a crucial requirement for the leader. Boyatzis (1982) refers to a concern with impact and relates this to the use of socialised power, but also to the use of unilateral power in directing the efforts of others. Kotter (1982) sees part of the motivation needed as a strong drive to lead which implies both power and achievement needs backed by strong self-confidence. This enables the individual to use power to achieve things through others.

Kanter (1983, p. 35) refers to "power skills - skills in persuading others to invest information, support, and resources in new initiatives". The ability to share power constructively is also mentioned by Rosener (1990).

Power is often seen in a negative connotation. Examination of the above, however, highlights a different context in terms of issues such as interpersonal influence, power sharing and socialised power.

3.1.3 SELF-SUFFICIENCY, INDEPENDENCE, BEING ONE'S OWN PERSON AND BEING INTERNALLY CONTROLLED

This cluster of competencies is very closely related to Rotter's (1966) original definition of Internal Locus of Control - the belief that one is in control of your own reinforcements as they will be contingent upon your own behaviour and not on other uncontrollable forces around you. Garfield (1986, p.57) states that "the most intriguing quality of the peak performers is that no matter how rough 'it' gets, how much of an assault on mind and body, they always feel that they can do something about it." They feel that they are the directors of their own lives and that they are in control of what happens around them.

Bennis (1989, p.71) expresses something of the same thought when he states that "rather than being designed by your experience, you become your own designer."

3.1.4 PROPENSITY TO TAKE RISKS, CURIOSITY AND A CHANGE ORIENTATION

A major role required of the leader is that of change agent. Curiosity, the propensity to take risks and a general change orientation is therefore of the utmost relevance and importance (Bennis, 1989; Zaleznik, 1990; Kotter, 1988).

Tichy and Devanna (1986, p. 30) state that leaders define themselves as change agents - they want to make a difference and transform the organisation of which they form a part. In addition, they see them as courageous people - "prudent risk-takers, individuals who take a stand". Bennis (1989) also stresses the need for courage in leaders as part of their ability to be innovative and change.

Kelly (1986) found that six of the CEO's in her study stated that the ability to manage change and handle ambiguity was highly relevant to their success. Nine of the CEO's mentioned a liking for challenge and risk-taking as being important.

3.1.5 FLEXIBILITY AND ADAPTABILITY

Flexibility and adaptability are closely related to a change orientation and risk propensity and have been found to characterise individuals who are able to act as change agents (Garfield, 1986; Kelly, 1986). However, these competencies are oriented more towards the way in which the individual reacts to change than to the proactive instigation of change. A flexible, adaptable individual is more resilient in the face of change and can withstand the onslaughts of a chaotic environment more readily.

3.1.6 STAMINA

Stamina as a leadership requirement is mentioned by a number of authors (Boyatzis, 1982; Garfield, 1986; Kotter, 1988). The need for stamina is essentially a reflection of the immense demands which the leadership role places on the individual and the ability of the individual to withstand the pressures which are implicit in these demands.

3.2 VALUES

Although Boyatzis (1982) does not classify values as a separate level of competency, they are so important in the model of leadership that they warrant separate mention. Spangenberg (1990) also points out that values have a direct influence on managerial performance and should therefore be considered. Values are manifest at the conscious level.

Leaders are seen to be value-driven above all else. Tichy and Devanna (1986, p. 30) state that "each of our transformational leaders was able to articulate a set of core values and exhibited behavior that was quite congruent with their value positions." Peters and Waterman (1982) also refer to the fact that the leaders of the organisation need to live the values of

the organisation in a tangible and visible way at all times. Kelly (1986) mentions that seven of her sample of CEO's attached great importance to having a clear value system.

In terms of the specific values which are held to be important, the most relevant are integrity (Bennis and Nanus, 1986; Bennis, 1989; Kotter, 1988; Senge, 1990), ethical behaviour (Kanter, 1989; Naisbitt and Aburdene, 1990) and openness (Beck, 1989). In addition, consistency in the values held and continuity in the way in which the values are expressed, is of particular importance.

3.3 THE SOCIAL ROLES AND SELF-IMAGE LEVEL

A social role is shaped by the way in which an individual interprets the social norms which are relevant and acceptable to the social group to which the individual belongs (Spangenberg, 1990). Self-image relates to the way in which an individual perceives himself and his evaluation of this image (Spangenberg, 1990). In terms of the competency model, many of the aspects which have been discussed at other levels also manifest at the social role level. However, this section will concern itself with those competencies which are predominantly manifest at the social role and self-image level.

3.3.1 SELF-CONFIDENCE, POSITIVE SELF-REGARD, REALISTIC
SELF-PERCEPTION AND ACCURATE SELF-KNOWLEDGE

Garfield (1986, p. 149) states that "peak performers accurately assess their personal strengths. Peak performers inventory themselves." He also notes that this assessment should lead to very detailed and specific self-knowledge rather than generalities. Bennis (1989, p. 53) notes that "people begin to become leaders at the moment when they decide for themselves how to be." He states that this is the most important base for effective leadership. "Know thyself, then, means separating who you are and who you want to be from what the world thinks you are and wants you to be." (Bennis, 1989, p. 54).

Knowing yourself is very closely related to being your own person. In fact, one cannot be one's own person without accurate self-knowledge and realistic perception of oneself. The individual should be both cause and effect rather than merely effect (Bennis, 1989). Kotter (1988) stresses the importance of self-confidence which can only stem from accurate self-assessment. Constructive introspection plays a crucial role in the job of managing. Introspection is needed for managing disappointment - an integral part of the leadership role (Zaleznik, 1977; Boyatzis, 1982).

3.3.2 TEAM PLAYER

The role of team player was discussed extensively earlier. The role requires specific competencies in terms of interpersonal skills and the empowerment of others (Kotter, 1990; Zaleznik, 1977; Bennis, 1989; Peters, 1987).

3.3.3 INTERPERSONAL PERCEPTION

The individual's perception of himself in interpersonal terms relates to aspects such as empathy, intuition and a concern for relationships (Zaleznik, 1990; Isenberg, 1984; Rosener, 1990; Zaleznik, 1990). The more general concern for relationships is stressed by Tichy and Devanna (1986) who emphasise a belief in people as crucial. Rosener (1990) refers to enhancing the self-worth of others as key. Boyatzis (1982, p. 127) views positive regard for others being expressed when people "demonstrate verbal and nonverbal skills that cause others to feel valued" and sees this as a relevant competency for managers. This competency is closely related to the ability to manage teams and be a team player and forms part of an overall cluster competencies which are manifest at the skills level as interpersonal competencies.

3.3.4 LIFELONG LEARNING AND SELF DEVELOPMENT

Leaders capitalise on all possible opportunities to learn more and to broaden their personal skills base and horizons. Tichy and Devanna (1986, p. 32) state that "As a group, our protagonists (leaders) show an amazing appetite for continuous self-learning and development." Garfield (1986) refers to an ongoing commitment to personal growth. Bennis (1989) comments that leadership cannot be taught, but must be learned and that this learning is again an ongoing process in which the leader plays a totally active role. Kanter (1989) stresses the role of learning in the development of the people who will run the post-entrepreneurial organisation - people who will see their primary security in being employable rather than employed - this again presupposes continuing learning and development.

3.4 SKILLS LEVEL

Boyatzis (1982, p. 33) defines a skill as "the ability to demonstrate a system and sequence of behavior that are functionally related to attaining a performance goal". Skills may be seen as the result of the interaction of many of the underlying levels of competency. Skills are the overt manifestation in behavioural terms of competencies at lower levels.

There are two major, relevant clusters at this level.

3.4.1 INTERPERSONAL SKILLS

Leaders need the ability to create networks across various formally defined boundaries within the organisation. Kanter (1989, p. 90) quotes Chester Barnard in recognising that "The leader's task...is to develop a network of cooperative relationships among all the people, groups, and organizations that have something to contribute to an economic enterprise." This allows access to information and also the opportunity for cross-functional communication and influencing.

Systems thinking (Senge, 1990; Isenberg, 1984) considers social networks to be of the utmost importance in cutting across formal organisational boundaries and focusing on interrelationships rather than on isolated elements of the organisation. Effective networking requires credibility, good relationship building and interpersonal capacity and integrity (Kotter, 1988). In addition, the creation of meaning through communication is one of the key strategies which leaders employ in the process of leading the organisation (Bennis and Nanus, 1985). The business of the new organisation requires a network of information

and knowledge (Drucker, 1988). Communication is essential. This general skill of communication includes negotiating (Kanter, 1987; Mintzberg, 1975) and influencing skills (Bennis, 1989; Bennis and Nanus, 1986) as well as coaching, mentoring and listening skills (Senge, 1990; Beck, 1989).

3.4.2 COGNITIVE SKILLS

Cognitive skills include analytical ability, the ability to deal with ambiguity, innovation and creativity.

Analytical ability is the ability to think logically and conceptualise. Analytical ability also requires the collection and analysis of relevant information. The diagnostic use of concepts is characterised by pattern identification and recognition in large amounts of information. This is done by applying a concept to the situation for interpretive purposes. Conceptualisation on the other hand is a more advanced skill in which the concept to organise or describe patterns and structures is developed (Boyatzis, 1982). This is obviously somewhat different from simply applying an existing concept to a situation.

Isenberg (1984) refers to the ability to synthesise isolated items of information into a cohesive whole leading to the so-called "aha!" experience. He also relates this to the aspect of tolerating ambiguity as a means to clearer thinking and conceptualisation. Garfield (1986, p. 209) points to "mental agility" which he defines as "an ability to see a situation from more than one perspective at a time". This also relates to mental flexibility and adaptability - prerequisites for innovation and change. Kelly (1986) found that twelve of her group of chief executives mentioned analytical ability as a key factor in their success.

3.5 SPECIALISED KNOWLEDGE

A broad, multi-disciplinary cross-functional base of knowledge is considered to be essential by a number of authors (Kanter, 1989; Kotter, 1990; Kelly, 1986; Boyatzis, 1982). A narrow focus is generally not seen as constructive. As was pointed out earlier, this leads to a paradox in which the leader is required to have general, broad knowledge on the one hand, but is also required to have certain highly specialised and specific skills on the other (Tichy and Devanna, 1986).

4. SPECIFIC COMPETENCIES SELECTED FOR INVESTIGATION

The following competencies were selected from the total set reviewed above for in-depth investigation in this study :

- Motive/Trait level:
 - Achievement Motivation
 - Internal Locus of Control
- Skill level:
 - Interpersonal skills
 - Cognitive skills

The particular competencies were selected in the first instance for measurability in the environment under investigation. In addition, a series of open interviews was held with senior people in the organisation in which the aspects which they viewed as relevant in achieving senior positions were discussed. In the case of Achievement Motivation, Cognitive skills and Interpersonal skills there was general consensus about the relevance and importance of the

competencies. However, in the case of Internal Locus of Control, an observation which was frequently made in response to the question: "How did you arrive at the current position which you occupy" was:

"The Bank told me to go to, then they said I should go to and then I was appointed as".

This would seem to indicate some feelings of helplessness and powerless in terms of career decisions which had been made in the past - an aspect which would appear to be in direct contradiction with the proposition that people who are leaders perceive themselves as having an Internal Locus of Control. Consequently, this competency was seen as being of paramount importance in the study, given the relevance in the literature and the apparent irrelevance of the competency in the environment of the bank.

5. SELECTED COMPETENCIES AT THE MOTIVE/TRAIT LEVEL

Achievement Motivation and Internal Locus of Control were selected at this level. Each of these concepts will be considered in more detail. The aspects considered will include the definition of the concept, the measurement of the concept, prior research done on the concept and the identification of potentially troublesome areas.

5.1 ACHIEVEMENT MOTIVATION

5.1.1 DEFINITION OF ACHIEVEMENT MOTIVATION

The concept of need to achieve in its formal form, can be traced back to the work of Murray (1938) on personality theory and motivation in general. Murray defined the motive to achieve as the drive:

"To accomplish something difficult. To master, manipulate, or organize physical objects, human beings or ideas. To do this as rapidly and independently as possible. To overcome obstacles and obtain a high standard. To excel oneself. To rival and surpass others. To increase self-regard by the successful exercise of talent." (in Maddi, 1976, p. 287).

Maddi (1976, p. 362) reduces this to an operational definition of "Competition with a standard of excellence". He also points out that this construct embodies both approach and avoidance aspects with the approach side looking at the need for success and the avoidance side at the fear of failure. This last aspect has also been documented by other researchers (Horner, 1972; Yamauchi and Doi, 1977).

Erwee and Pottas (1982, p. 85) propose a further simplified definition of the construct as "striving for especially difficult and challenging goals supported by high personal standards of excellence." Boyatzis (1982, p. 62) defines it as "images of performing against a standard of excellence or accomplishing something uniquely".

The elements which are common to all the above definitions are:

- Some notion of a standard of excellence which is not necessarily set externally - ie some notion of internalised standards of excellence;
- Competition with others;
- The need to surpass yourself;
- Striving for a high level of difficulty or challenge with the associated need to persist or persevere in the face of opposition.

Erwee and Pottas (1982) in reviewing research on the construct, point to the confusion which has surrounded the definition. In particular, the theoretical base, the methodology used and the subjects used in particular studies have influenced the precise definition.

The various facets of the definitions highlight the multi-dimensionality of the construct. Previous studies have elicited a number of different factors in the concept. These are reviewed extensively by Erwee and Pottas (1982). The factors which have been found include the following:

- Personal vs social need to achieve (Bandig, 1964)
 - Need to do well at a task vs Need to be a success (Costello, 1967)
 - Self-determination vs Action orientation (Malan, 1978)
 - Independence, Choice of achievement related activity, Feelings related to success and failure, Preference for moderate rather than high or low risk situations, preference for activity involving competition and skill vs co-operation and chance and Choice of or persistence at demanding tasks. (Mehrabian, 1968)
- Need achievement with regard to a future time perspective, facilitating anxiety and debilitating anxiety (Modic, 1977)
- Hope of success, Fear of failure, preference for success at intellectual tasks and preference for achievement orientated situations (Latta, 1978).

- Work ethic, Acquisitiveness for money, dominance, mastery, pursuit of excellence, competitiveness and status aspiration (Cassidy and Lynn, 1989)
- Autonomous vs social achievement (Strumpfer, 1975).

Pottas, Erwee, Boshoff and Lessing (1980) in the development of the Achievement Motivation Questionnaire, found the following factors:

- Goal-directedness consisting of Persistence, Awareness of Time and Action Orientation;
- Personal Excellence consisting of Aspiration Level and Personal Causation.

The current study applied the definition proposed by Erwee and Pottas (1982) and investigated the factors defined by Pottas, Erwee, Boshoff and Lessing (1980).

6.1.2 ACHIEVEMENT MOTIVATION AND LEADERSHIP

Achievement Motivation has been shown to have relevance for leadership in the studies reviewed. Boyatzis (1982) found that superior managers had significantly higher levels of Achievement Motivation than average managers. McClelland (1961) focused on this need in the make-up of individuals who succeed.

5.1.3 MEASUREMENT OF ACHIEVEMENT MOTIVATION

A number of instruments have been developed for the measurement of Achievement Motivation. As was pointed out earlier, the definition of the construct is closely related to the measurement methodology which is applied. This implies that consistency should be maintained between the definition of Achievement Motivation and the method by which it is measured.

In essence, the methods used can be divided into three categories:

- The first of these uses projective techniques such as the Thematic Apperception Test (TAT, Murray, 1938) or the shortened version of the TAT developed by McBer and Company, known as the Picture Story Exercise (Boyatzis, 1982). Both of these tests measure Achievement Motivation at the fantasy level (Maddi, 1976) and require both registered test users and interpreters in their application. They are therefore not necessarily practical for application in a generalised and geographically decentralised commercial environment.

- At the second level, tests such as the Cattell Sixteen Personality Factor Questionnaire (16PF) can be used (Spangenberg, 1990). Once again, the test has to be administered by a registered test user under the supervision of a registered psychologist. The practicality of this method of testing in the environment under scrutiny is questionable.

- The final group of tests consists of self-report inventories which are simple to use and interpret and can be applied with relative ease. The Achievement Motivation Questionnaire (AMQ) developed by Pottas, Erwee, Boshoff and Lessing (1980) is one such instrument and was used in the current study. Further details of the test are given in the section dealing with methodology in Chapter Three.

5.2 INTERNAL LOCUS OF CONTROL

5.2.1 DEFINITION OF THE CONSTRUCT

A number of definitions are presented here with a view to extracting consistent elements from the definitions.

The construct was originally postulated by Rotter (1966, p. 1). He defined the extent to which a person can be conceived of as being internally controlled as related to "the degree to which the individual perceives that the reward follows from, or is contingent upon, his own behavior or attributes versus the degree to which he feels the reward is controlled by forces outside of himself and may occur independently of his own actions."

Boyatzis (1982, p. 71) refers to this as "a sense of efficacy" and relates the concept to that of "origins and pawns" coined by DeCharms (1969). An origin believes that he is "the director of his life. He feels that what he is doing is the result of his own free choice.." while a pawn "feels that someone, or something, is in control of his fate." (DeCharms, 1969 quoted in Boyatzis, 1969, p. 66).

DeCharms (in Lefcourt, 1981) expressed concern about the differentiation of Locus of Control of reinforcements (as in the Rotter definition) from locus of causality of behaviour (as in his own definition of origins and pawns). He proved that the two aspects are not the same and are in fact, in many instances, not correlated. This raises some concern with the clarity of definition of locus of Control and may also relate to the potential multi-dimensionality of the construct - an aspect which will be discussed further.

The key elements in the definitions are:

- A sense of responsibility for oneself in terms of both behaviour and the results or consequences of that behaviour;
- A sense of the ability to control events rather than being subject to random fluctuations produced by others, fate or luck;
- Some sense of self-sufficiency or mastery.

A number of studies have been directed at the multi-dimensionality of the construct. The major factors which define some of the common elements of the construct are:

- Belief in luck vs belief in personal control or predictability (Collins, 1974; Greenberger and Strasser, 1986; Erwee and Pottas, 1982; Mirels, 1970);
- Some form of belief in political control as against helplessness in the face of political events (Erwee and Pottas, 1982; Mirels, 1970; Collins, 1974)
- Control over social relationships (Erwee and Pottas, 1982).

The four factors found by Erwee and Pottas (1982) namely Political Control, Control over Social relationships, Personal Control and Belief in Luck, were used in the current study. The factors are particularly relevant in the environment under consideration if the statements of apparent helplessness which were quoted earlier are considered.

5.2.2 LOCUS OF CONTROL AND LEADERSHIP

Over and above the qualitative studies on the nature of the construct, there have been a number of studies which have investigated the relationship between Locus of Control and various facets of organisational and managerial functioning. In addition, there have also been a number of studies which have looked at success behaviour and Locus of Control.

In the area of coping with stress and handling rapid change, studies by Anderson (1977) and Anderson, Hellriegel and Slocum (1977) have shown that internally controlled individuals adapt more readily to stress, respond in terms of task oriented behaviour and are better able to deal with rapid change. Dailey, Ickinger and Coote (1986) in investigating the relationship between Type A behaviour (the behaviour exhibited by individuals who are prone to heart-attacks), Locus of Control and adaptation did not, however, achieve unambiguous

results in the relationship between Locus of Control and adaptation to and tolerance of stress. Parkes (1984), however, also confirmed the greater ability of individuals with an internal Locus of Control to cope with stress.

Miller, Kets de Vries and Toulouse (1982) researched the relationship between Locus of Control and the quality of strategy-making by executives. It was established that internally controlled individuals (internals) are more likely to be innovative and to capitalise on opportunities - ie indulge in more risky and proactive strategies. Externally controlled individuals (externals), on the other hand, tended to be risk averse, conservative and reactionary. The new organisation with the demands for change, innovation and adaptation to the environmental chaos it faces (Peters, 1987), will require people who behave more like the internals described by Miller et al (1982).

In the interpersonal sphere, Goodstadt and Hjelle (1973) determined that internals are more likely to rely on personal persuasive power whereas externals are inclined to use coercive power to achieve results. This again relates to the communication and negotiation skills needed for the new age leaders. In a similar vein, Mitchell, Smyser and Weed (1975) established that internals are more likely to be in managerial positions than externals and that they are also more comfortable with a participative style of management.

Greater job involvement and commitment have also been found in internals than in externals (Runyon, 1973).

A cautionary note is sounded in research by Bazerman (1982). He firstly differentiates between control over activities and control over outcomes and then hypothesizes that actual performance is dependent on the congruence between the degree to which the organisation imposes control and the individual's capacity to use control. This issue of organisational "fit" is highly relevant in the current study as it was conducted in one organisation only. This means that any findings are specific to one organisation and, as has been pointed out earlier, may not be generalisable to others.

A further anomalous finding which should be noted is that of Boyatzis (1982). Locus of Control was defined operationally at the trait level as the self-definition score on the Picture Story Exercise. Locus of Control was found to be significantly related to managerial performance, but in a curvilinear manner. It was found that both superior and poor managers had significantly higher scores than average managers. Boyatzis (1982) interprets this as meaning that although an individual perceives themselves as being internally controlled,

actions initiated by the individual are not necessarily appropriate. This would indicate that Locus of Control is a necessary but not sufficient competency for a manager. Other competencies such as those on the Cognitive skill level are required to ensure that the behaviour actually exhibited overtly, is appropriate and has undergone some reality testing. Boyatzis (1982) also considers the possibility that managers with an Internal Locus of Control might tend to "buck the system" which could lead to poor ratings from their superiors. This may again be ineffective and lead to poor results.

This latter finding will also be revisited in the interpretation of the results of the present study as ratings by superiors were used both as the criterion for separating individuals with potential from those without potential and also as a measure of the Interpersonal and Cognitive skills displayed by the subjects.

5.2.3 MEASUREMENT OF LOCUS OF CONTROL

A number of possible measurement methods are available. Self-report inventories abound and dominate in the experimental work which has been done.

The most commonly used measurement instrument has been the questionnaire originally developed by Rotter (1966). There have been a number of concerns about the measurement of Locus of Control by this means. They have centred on issues such as:

- High correlation of scales used with various measures of social desirability;
- Low item-total score correlations;
- The multi-dimensionality of the construct;
- The forced-choice format of the original scale;
- The inclusion of items in the original scale which serve as distractors and are not relevant to the construct being measured at all;
- Heterogeneity of the external control environment.

These concerns have led to the development of a number of other scales which measure either the overall construct or certain aspects of the construct (Duttweiler, 1984; Nowicki and Strickland, 1973; Clifford, 1976; Lefcourt, Von

Bayer, Ware and Cox, 1979). There does, however, not appear to be any conclusive evidence of the superiority of these scales over the original (Erwee and Pottas, 1982). Consequently, the original scale and the factors identified by Erwee and Pottas (1982) were used for the current investigation.

5.3 THE RELATIONSHIP BETWEEN ACHIEVEMENT MOTIVATION AND LOCUS OF CONTROL

The relationship between Locus of Control and Achievement Motivation has been the subject of a number of investigations. This has been prompted by the fact that there are definite similarities in some of the sub-factors of the two constructs. So, for example, Personal Causation defined by Pottas et al (1980) as a sub-factor of Achievement Motivation and Personal Control which Erwee and Pottas (1982) found as a sub-factor of the Rotter (1966) scale, would appear to be similar.

Rotter (1966, p. 3) postulated a relationship between the two constructs on the basis that work done on Achievement Motivation prior to his study had indicated that "people who are high on the need for achievement, in all probability, have some belief in their own ability or skill to determine the outcome of their efforts". It was not, however, necessarily seen as a linear relationship.

Erwee and Pottas (1982) point out that a number of studies have confirmed the overall relationship. They also review studies which have looked at some of the sub-factors in each of the constructs and found some relationships. Their own study focused specifically on the relationship between the two constructs in a population of South African managers. They concluded that although the two constructs are related, they should nonetheless be considered as separate psychological constructs. This is particularly apparent when the lower level dimensions are examined.

The possible relationship was explored further in the current study and details of this are reported in Chapter Four.

6. COMPETENCIES AT THE SKILL LEVEL

The competencies at the skill level which are manifest in behaviour, were also considered for further inclusion in the study. It was decided that clusters of skills in the Interpersonal and Cognitive spheres would be included as both these clusters have been given prominence by previous studies of leaders.

6.1 THE DEFINITION OF INTERPERSONAL AND COGNITIVE SKILLS

The definition of these skills was explored relatively fully in the section dealing with the competencies expected in leaders. It should be noted that these skills can be assessed to a large extent in terms of the assessment of the behaviours which would be expected in the relevant context.

Interpersonal skills are considered to include negotiating skills, team effectiveness, communication, interpersonal awareness, the development of people, allowing participation and empowering people, giving direction to others and having a well-defined personal presence.

Cognitive skills, on the other hand are made up of analytical ability, conceptualisation, innovation and initiative, flexibility, systems thinking and the ability to see the broad picture.

6.2 THE MEASUREMENT OF INTERPERSONAL AND COGNITIVE SKILLS

There are a number of instruments available for the assessment of the two categories of competencies. So, for example, the FIRO-B test

could be used at the motive level to assess interpersonal competency. Cognitive capacity could be assessed with the use of the Mental Alertness test (Spangenberg, 1990).

In this instance, however, as these competencies were seen as essentially skill based, they were assessed on the behavioural level by means of a performance appraisal instrument. This necessitated a review of the literature about performance appraisal.

6.3 PERFORMANCE APPRAISAL

6.3.1 BROAD OVERVIEW OF THE PRINCIPLES AND CONCEPTS OF PERFORMANCE APPRAISAL

Performance appraisal generally refers to the assessment of a subordinate's performance in a particular position by his formal superior in the organisational hierarchy. Landy and Farr (1980, p. 74) point out that this type of assessment can be seen as "a retrospective synthesis by one individual of the efforts or performance of another" and that it therefore deals with a whole conglomeration of activities rather than with any individual skills or activity. Performance appraisal can be extremely useful in determining levels of competence or skill in people where the aspect

which is being assessed can be observed in a number of different behavioural manifestations. This is the case with the cluster of interpersonal and cognitive skills identified above.

Boyatzis (1982) used various performance measures as the criterion measure in his study of managers. The level of performance of the managers was used to distinguish good performers from poor ones. The actual measures used consisted of work output measures, supervisory nominations and supervisory ratings. The use of performance appraisal for this type of measurement is therefore not an unusual approach.

6.3.2 THE PERFORMANCE APPRAISAL PROCESS

The performance appraisal process is generally considered to be beset by a large number of problems. These problems relate to issues of the accuracy, validity and reliability of the measurements obtained. A review of the literature quickly demonstrates the potential areas of difficulty.

Resistance of the superior to the formalised process of appraisal is often the overriding problem (McGregor, 1987). Superiors dislike confronting their subordinates, may lack the skill to have the required counselling and often distrust the validity of the appraisal instrument. The major problem which McGregor (1987) identifies, is the requirement that the manager should "play God" over his subordinates. The solution proposed is a more interactive process in which the subordinate can play a proactive role.

A review by Landy and Farr (1980) of research done, indicates that position characteristics, organisation characteristics, purpose of rating, rater and ratee characteristics, rating scale, rating instrument and the rating process have all been addressed as potential influences on the validity and reliability of performance ratings obtained via performance appraisal.

Figure 4 illustrates the components of the process of performance appraisal and will be used to organise the aspects which have been researched. Each of the components of the model are discussed separately.

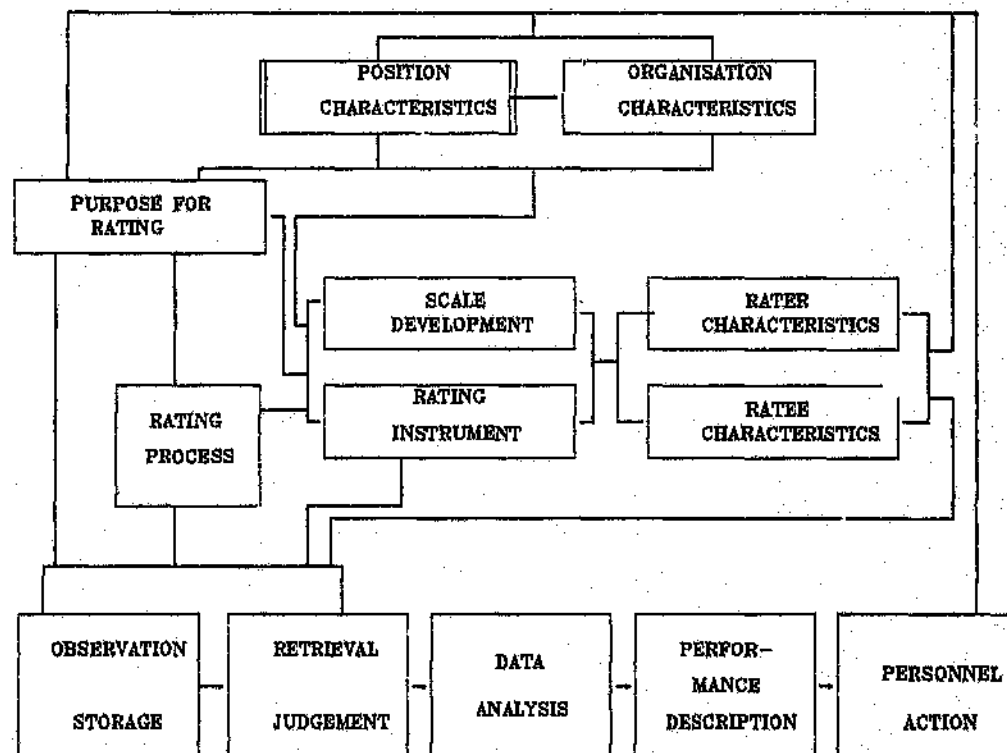


FIGURE 4: PROCESS MODEL OF PERFORMANCE RATING

LANDY, F.J. and FARR, J.L. (1980). Performance Rating.
Psychological Bulletin. Vol 87 no 1, pp 72 - 107.

i) Purpose of rating

The purpose of the rating has an effect on the extent to which ratings are more or less lenient. Landy and Farr (1980) point out that ratings which are used for administrative applications such as salary increases or promotion decisions, tend to be more lenient than those which are obtained for research applications. McIntyre, Smith and Hassett (1984) investigated the relationship and found that although there is an effect, it is slight. Personal experience by the author in a number of South African organisations has shown empirically that there is a definite tendency towards greater leniency in rating when the purpose is for salary increases. If the assessment is done for the purpose of highlighting strengths and areas for development in the individual, ratings tend to be more severe and also have less evidence of halo effect.

ii) Position and organisation characteristics

It appears that the difficulty level of the job performed by an individual has a slight positive correlation with the magnitude of the positive rating given (Landy and Farr, 1980). Again, empirical experience by the author in a large range of South African

organisations has been that the hierarchical level of positions has a definite effect on the ratings, with ratings of staff at higher levels in the hierarchy being increasingly lenient. The implicit assumption reflected by this pattern of ratings appears to be that senior people would not have reached their current status if they were not good performers in any event. The relevant aspect which is lost from sight in this case, is the fact that the expectations set for the individual should also increase.

iii) Characteristics of the Rater

Landy and Farr (1980) highlight a number of general facets:

- Higher ratings are generally given to ratees of the same race as the rater;
- There are some indications that rater age may be inversely correlated with leniency;
- Psychological attributes of the rater such as cognitive complexity and self-confidence were also found to have an effect on bias patterns in ratings;

- Experience in rating was found to have two effects - more experienced raters tend to give more reliable ratings but also appeared to be more lenient;
- The rater's own performance level also appears to have some effect on the ratings given in that better performers tended to rate more accurately;
- The extent of the rater's knowledge of both the ratee and the job contribute significantly to accuracy of rating.

Research by Borman (1979) seemed to suggest that accurate raters are dependable, stable, empathic, tolerant individuals.

The key point about this research is, however, the fact that there is a great deal of variability introduced into performance ratings as a consequence of rater response sets. These response sets predispose individual raters to leniency, severity, central tendency or halo effect in their ratings.

iv) Rates characteristics

Landy and Farr (1980) note that sex role interaction with occupational type appears significant. Males tend to receive more favourable ratings than females in traditionally male occupations. Reassuringly though, rater performance does tend to have the strongest influence on actual ratings.

v) Rating instrument and scale development

Landy and Farr (1980) point out that there does not appear to be any particular advantage to using one type of rating scale over any other (eg graphic scales, behaviourally anchored scales, numeric scales). They also point out that there should probably not be more than nine possible response categories and that clear dimensional definitions would also be desirable.

Siegel and Lane (1987), in looking at litigation cases on performance appraisal in the USA, cite a number of aspects in which performance appraisals have been seen to be lacking. These include appraisals developed without the benefit of prior task analysis which raise the question of

content relevance and trait appraisal rather than specifically behaviourally oriented appraisals. They therefore suggest that these should be some of the criteria to be used in the development of effective appraisal instruments.

vi) The rating process

Landy and Farr (1980) state that training has generally been found to be effective in reducing rater errors. There is no real evidence of the effect of such training on the validity of the ratings although aspects such as test-retest reliability increase somewhat.

Siegel and Lane (1987) also refer to the relevance and importance of rater training in the process of achieving more accurate ratings. McIntyre, Smith and Hassett (1984) also report positive findings on the effects of rater training. However, they stress the need for frame of reference training in which the actual context of the appraisal rating is discussed as well as pure rater error training. The former is found to be more influential in determining the actual accuracy of the ratings. Borman (1979) on the other hand determined that training significantly reduced Halo effect in ratings, but did not increase accuracy.

There is also some evidence that ratees assessed earlier on tend to be assessed more reliably than those done later in the process.

In conclusion, then, the literature appears to confirm that the performance appraisal rating is fraught with a number of potential traps in each of the elements of the process. The instrument which was used for this study will be reviewed in detail in Chapter Three to establish the way in which the specific problems identified above are dealt with.

7.

SUMMARY

The survey of the literature points to the relevance of a number of competencies for leadership at all the levels of the organisation. It especially emphasises the need for vision, congruent values, realistic self-knowledge and self-confidence and the need to one's own person, the need to excell and be extended, team work, communication, networking and a strong base of cognitive skills. The specific areas selected for further study are Achievement Motivation, Internal Locus of Control and Cognitive and Interpersonal skills. These competencies have been studied quantitatively in some of the studies reviewed. However, no predictive model combining some of these aspects has been found in the review of

the literature. The measurement of the selected competencies has been reviewed and the potential difficulties pointed out. These difficulties will be addressed in Chapters Three and Four when the methodology and the results obtained are discussed.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

The propositions stated in Chapter One are repeated here and restated in the form of testable hypotheses where this is relevant. The rationale for the choice of the hypotheses is given in terms of both the literature review and the actual context of the organisation within which the study was conducted. The research design is detailed and the methodology used for the testing of each of the hypotheses is given.

1. THE PROPOSITIONS

1.1 STATEMENT OF THE PROPOSITIONS

Four propositions were stated to be tested in this study. The propositions are as follows:

Proposition 1: Individuals with potential for further advancement will perceive themselves as having an internal Locus of Control.

Proposition 2: Individuals with potential for further advancement are higher in Achievement Motivation than their peers.

Proposition 3: Measures of specific effective behaviours required for competence in Cognitive and Interpersonal Skills can differentiate further between individuals with potential and those without.

Proposition 4: It is possible to differentiate between individuals with potential and those without on the basis of a predictive model which includes Locus of Control, Achievement Motivation and performance levels as measured by performance appraisal scores for cognitive and interpersonal skills.

1.2 CHOICE OF PROPOSITIONS

The choice of the propositions and the variables to be measured was based on the survey of the literature. The variables detailed above were found to be significantly related to leadership behaviour. In addition, it was found in discussion with various individuals in the bank, that achievement motivation, cognitive skills and interpersonal skills were considered to be important. Locus of control on the other hand appeared to be irrelevant.

As this latter point conflicted with work which had been done previously, it was thought to be of particular relevance in the current investigation. It is also of particular importance as the bank is undergoing a culture change which will lead to the flattening of structures and the devolution of decision-making authority to lower levels in some instances. This will depend very much on people being able to function independently in their own frames of reference.

A further issue in the choice of the specific variables to be considered was that of measurability. As was discussed in Chapter Two, measures which are easy to obtain are available for Locus of Control, Achievement Motivation and Cognitive and Interpersonal skills. The measures are particularly easy to apply to the population of interest and therefore influenced the choice of the variables to be investigated to some extent.

Lastly, it was considered that it would be useful to attempt to generate a predictive model for potential. The organisation would benefit considerably from the availability of such a model for use in the selection of high potential candidates. The model would not be considered to be the final selection tool in succession planning, but could be useful as a short-listing technique. If the model were to be applied at a later stage, the variables which merit inclusion in the model would therefore be those for which

measurements are readily available or for which measurements could be obtained with relative ease. The geographically decentralised nature of the organisation was also considered. There are not necessarily registered and skilled psychologists available at all sites. Simplicity in testing was therefore a criterion for the selection of variables.

In particular, it has become an urgent priority in the organisation to determine an effective means of selecting candidates to be put through the Management Development Centre (Assessment centre) as it was found that the previous ways of selecting candidates often yielded inappropriate attendees. As the assessment centre is a very costly instrument, more relevant and appropriate screening would be useful.

2. THE HYPOTHESES

The propositions stated above were rephrased as testable hypotheses. This was done to enable statistical significance testing to be carried out to prove or disprove the propositions stated.

Hypothesis 1:

There is no significant difference between the mean scores for Locus of Control for those individuals with potential for further development and those without.

Sub-hypotheses:

There are no significant differences between the mean scores for the sub-factors of Locus of Control namely Political Control, Control over Social Relationships, Personal Control and Belief in Luck for those individuals with potential for further development and those without.

Hypothesis 2:

There is no significant difference between the mean scores for Achievement Motivation for those individuals with potential for further development and those without.

Sub-hypotheses:

There are no significant differences between the mean scores for the sub-factors of Achievement Motivation namely Goal

Directedness and its sub-factors, Persistence, Awareness of Time and Action Orientation and Personal Excellence with its sub-factors, Aspiration Level and Personal Causation for those individuals with potential and those without.

Hypothesis 3:

There are no significant differences between the mean scores as measured by performance appraisal for the cognitive skills and the interpersonal skills of those individuals with potential for further advancement and those without.

Sub-hypotheses:

There is no significant difference between the mean score for Cognitive skills of those individuals with the potential for further advancement and those without.

There is no significant difference between the mean score for Interpersonal skills of those individuals with the potential for further advancement and those without.

Hypothesis 4:

The proposition to be tested, related to the possibility of constructing a predictive model, based on those elements of Locus of Control, Achievement Motivation, Cognitive and Interpersonal skills for which there are significant differences between the mean scores for those individuals with the potential for further advancement and those without. The model should discriminate effectively between the two groups of individuals.

It was decided that an indication of the effectiveness of the predictive model would be given by a comparison of the proportions of people actually assessed to belong to each group with the proportions predicted to be in each group.

The following hypothesis was therefore stated:

The proportion of people who are predicted to have potential by the model will be identical to the proportion of people who actually have potential, as assessed by the panel.

It was felt that failure to reject this hypothesis would give an indication that the model was not predicting as effectively as would be desirable.

3. THE LIMITATIONS OF THE STUDY

The study has a number of limitations. The major limitation is the fact that the study was conducted in one organisation only. As was pointed out in Chapter One, Section 5, this is not seen as a problem as the issue of potential for advancement is essentially culturally bound and the results of one study would therefore not necessarily be generalisable to other organisations in any event.

A further important limitation is the fact that the study did not include every competency which has ever been identified for leaders. This was discussed extensively above in Section 1.2 above, which referred to the choice of propositions for further analysis. It should also be noted that the study was not considered to be final and definitive in that it will serve as a pilot for the further investigation of the competency modelling approach in defining profiles for individuals required in various positions in the organisation. In this context, the restriction of the number of competencies included in the study is not seen as problematic.

The use of performance appraisal information as measurement method for specific competencies was also raised as a potential problem in Chapter Two. The specific instrument used and the way in which potential problems are addressed by the instrument, are discussed exhaustively in this chapter.

Finally, the subjectivity of the method used for the assessment of potential could also be questioned. In this instance, the results obtained are discussed with this caution very much in mind. The issue will be discussed further in Chapter Five.

4. RESEARCH METHODOLOGY

4.1 SAMPLING

The bank employs approximately 7 000 people. Of these, about 600 fall in the managerial population. This population is in turn divided between the branch operations in the Commercial Banking Division and the rest of the bank. Branch management is the population of particular interest in terms of succession planning and career management and the study was therefore restricted to this population. Figure 5 shows the basic structural hierarchy in the Commercial Banking division. The levels

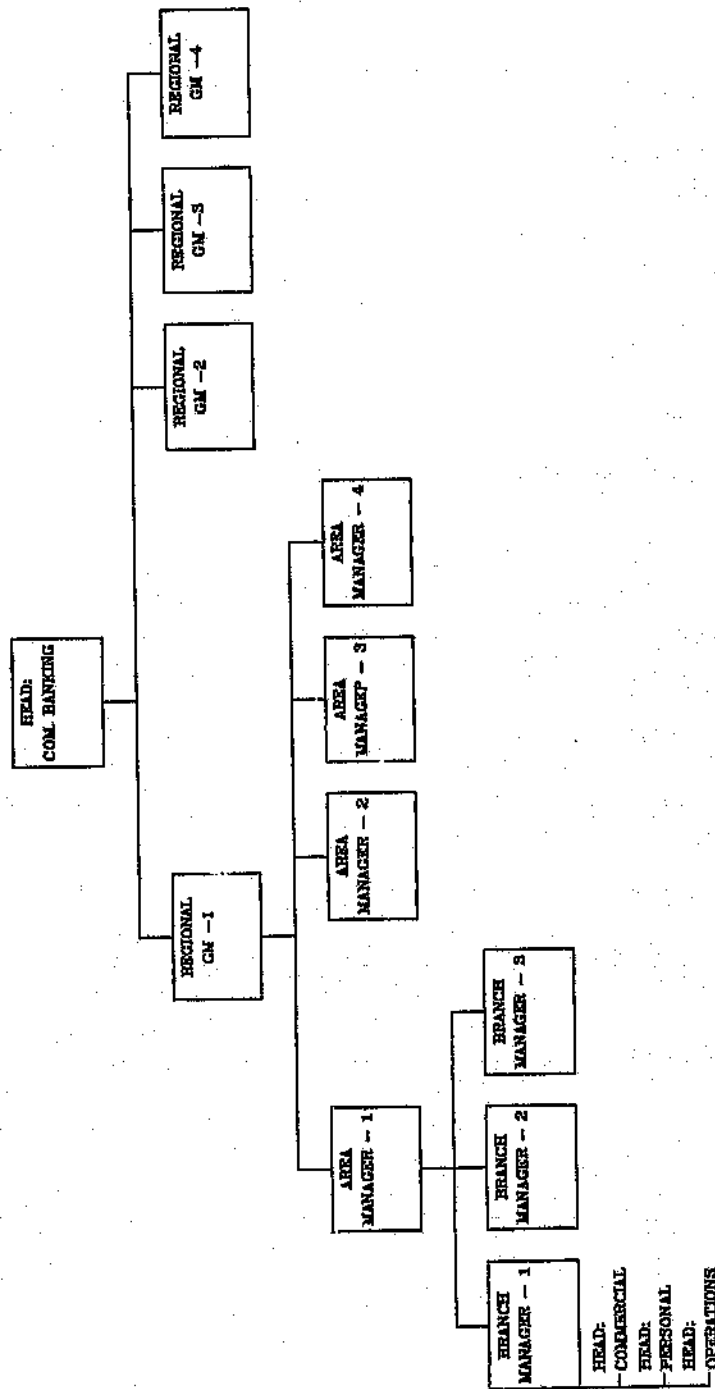


FIGURE 5: THE STRUCTURE OF THE COMMERCIAL BANKING DIVISION

selected for study in this hierarchy were those of Area manager and Branch manager. No staff below these levels were considered as the intention was to predict the advancement potential of managerial staff into General Management. The entire population at this level was considered to be the target population. This meant that the total sample size was 138 area and branch managers.

The population was considered to consist of two categories - those with the potential for further advancement in the organisation and those without this potential. The population was classified into the two relevant categories as detailed below in Section 4.2.3.

Each subject was assessed in terms of the following variables of interest:

- The degree of externality in Locus of Control;
- The strength of each of the sub-factors of Locus of Control;
- The strength of Achievement Motivation;
- The measure of each of the sub-factors of interest in Achievement Motivation.
- Performance level in respect of Cognitive skills as obtained from the performance appraisals;

- Performance level in respect of Interpersonal skills as obtained from the performance appraisals;
- Selected biographical variables such as age, length of service with the organisation, tenure in a management position as well as details of educational level.

The information collected served as the basis for further analysis and the testing of the relevant hypotheses.

4.2 MEASUREMENT OF THE TEST VARIABLES

4.2.1 QUESTIONNAIRE MEASURES

A set of questionnaires was sent out to each person in the sample.

The set was sent out under cover of two letters (Appendix 1). The first of these, under cover of the Wits Business School, sanctioned the research and the second was a personal letter from the author who is known to all the subjects.

The set of questionnaires consisted of the following (Appendix 2):

- A basic biographical questionnaire;
- The Internal-External Locus of Control (I-E) questionnaire (Rotter, 1966);
- The Achievement Motivation Questionnaire (AMQ) (Pottas et al, 1980).

4.2.1.1 THE BIOGRAPHICAL QUESTIONNAIRE

The objective of the questionnaire was to collect certain basic information about each of the subjects. Although a reasonable amount of the information required is available from the organisation's salary system, the work required to extract the information in a usable form was considered to be too time-consuming and the questionnaire was consequently used. In addition, a great deal of the information contained in the organisational database is of dubious accuracy in terms of biographical variables. The questionnaire was simple to complete and the information was collected with the purpose of controlling for the influence of any biographical aspects. In particular, the influence of age and tenure were of interest.

4.2.1.2 THE I-E QUESTIONNAIRE

The I-E questionnaire was used for the measurement of the extent to which the subjects perceived themselves as being externally controlled. The format developed by Rotter(1966) was used precisely as it stands.

The reasoning for this was that it would allow direct comparison with the Erwee and Pottas(1982) study in which the instrument was used and in which the sub-factors of interest were identified.

The test is a self-report inventory consisting of twenty-nine forced choice questions in which the subject is asked to choose one of two alternatives. One of the alternatives relates to a perception of external control and the other to internal control. Six of the questions are fillers. It was applied by asking subjects to circle an A or a B on the questionnaire itself, depending on their choice.

The potential problem issues surrounding the use of the test have been detailed in Chapter Two. It was, however, as explained earlier, decided that as there is no totally conclusive evidence that any other tests are more trouble-free, the I-E test would be used.

The total score is made up of the number of externally oriented choices made by the individual. The maximum attainable score is therefore twenty-three. The higher the score, therefore, the greater the degree to which the individual perceives himself to be externally controlled.

The psychometric properties of the scale are detailed by Rotter (1966) and indicate that the scale can be applied usefully in terms of aspect such as the internal consistency of the scale and the test-retest reliability.

The classification of the items in terms of the sub-factors determined by Erwee and Pottas (1982) is given in Appendix 3. This classification was used as the basis for developing scores for the sub-factors. As can be seen, items 3 (One of the major reasons we have wars is because people don't take enough interest in politics), 6 (Without the right breaks one cannot be an effective leader) and 29 (Most of the time I cannot understand why politicians behave the way they do) were not included in any of the factor scores as the loadings were too low. This means that the overall score in this instance is a maximum of twenty only if all the sub-factors are combined.

It should be noted that the scores obtained for the I-E scale are, in effect, ordinal measures. However, as the test has been well validated and used extensively by a number of researchers who have treated the scores successfully as interval data, this practice is also followed in the current study.

A basic LOTUS 1-2-3 programme was developed in which the answers given to the various items could be entered and the questionnaire could be automatically scored, both in terms of total score and in terms of the sub-factor scores.

4.2.1.3 THE ACHIEVEMENT MOTIVATION QUESTIONNAIRE(AMQ)

The Achievement Motivation Questionnaire developed by Boshoff et al (1980) was used to measure the level of Achievement Motivation of the subjects. The questionnaire was chosen for its ease of administration, but also because it again allowed direct comparison with the Erwee and Pottas (1982) study.

The AMQ is a self-report inventory. It consists of eighty-four forced choice questions in which the individual is asked to choose one of two alternatives. One of each pair of alternatives demonstrates achievement motivated behaviour whereas the other indicates the opposite. In this case it was again administered by asking respondents to circle either an A or a B for the appropriate alternative on the questionnaire.

The sub-factors which were determined originally in the development of the test (Pottas et al, 1980) are scored individually through the combination of specified sets of items as indicated in Appendix 4. The intermediate

factor scores are determined through the summation of the relevant sub-factor scores.

The scores obtained for the AMQ factors are ordinal measures as well. This test has also been used fairly extensively by the original developers and others and the scores have therefore again been treated as interval data in the current study.

A LOTUS 1-2-3 programme was again developed into which the answers could be entered and which then automatically produced the test scores for the sub-factors as well as the overall Achievement Motivation score.

Norms on the test are available in the form of normalised stanines. There are norms available for a number of sub-groups. The group of most interest in the present study are White Male South African Managers which consisted of a sample of 240 managers (Pottas *et al*, 1980). Data on the psychometric properties of the test given by the developers indicate that the test has validity and reliability.

4.2.2 PERFORMANCE APPRAISAL

The measurement of the Cognitive and Interpersonal skills was done by the use of performance appraisal scores from the normal

annual performance appraisal exercise in the bank. This appraisal is done using the MENTOR-3 system and questionnaires which have been designed specifically for branch management (Appendix 5). The MENTOR-3 system is used by a large number of organisations in South Africa, England and Israel, including two other major financial institutions in South Africa. The system is therefore well tried and tested and has been shown empirically to have good reliability and validity.

The appraisal scores were retrieved from the computerised information system for each of the individual subjects for whom the information was available. In two cases, the individuals had been promoted to branch management after the most recent performance appraisal exercise. This meant that they had been assessed on a different questionnaire and that the information was not compatible with that for the other managers. They were therefore excluded from any of the analyses which required the performance appraisal information.

The scores for the competencies of interest were made up of composite dimensions. Cognitive skills consist of the dimensions of Initiative/Flexibility and Problem analysis whereas Interpersonal skills are made up of the dimensions of Communication/Interaction and Leading. The items which define each of these skills are given separately in Appendices 6 and 7. The selection of the relevant dimensions for

inclusion in the analysis was done on the basis of the Interpersonal and Cognitive skill clusters identified in the review of the literature in Chapter Two.

4.2.2.1 OVERVIEW OF THE BANK'S PERFORMANCE APPRAISAL SYSTEM

The bank has made use of a computerised performance appraisal system since 1985. The system relies on a questionnaire which is completed for each individual by his immediate superior. There is also a self-assessment questionnaire which is completed by the subordinate for later discussion with the appraiser. As this was not used in the current study, the issue of self-assessment will not be discussed further here. The criteria used for measurement are both behavioural and results oriented.

The questionnaire information is captured on computer and processed to ameliorate some of the errors encountered in the rating process and to consolidate the results and present them in a unified, usable format to the rater. The rater uses the consolidated information for a feedback discussion with the ratee. The system provides management information in the form of specific scores for performance dimensions per individual staff member.

It has been noted in Chapter Two and earlier in the current chapter, that performance appraisal is a somewhat controversial measure to use in a study of this nature. The possible problems which could be encountered were discussed extensively in Chapter Two in the context of the model of the performance appraisal process offered by Landy and Farr (1980) presented in Chapter Two, Section 6.3.2. It is therefore consistent and convenient to use the same model as the framework for discussing the way in which the appraisal system used addresses the problematic issues. The operation of the system is discussed within the series of sub-headings which denote the various components of the model.

i) Purpose for Rating

The major objective of the system is to further the development of the individual being assessed. The principal output of the system is a discussion document which is used as the basis of a developmental counselling interview with the individual. There is no direct coupling with salary increments or with promotion at this point although the system does ask for an assessment of potential for further advancement. As was mentioned in Chapter Two, ratings should therefore not necessarily be excessively lenient.

ii) Position and organisation characteristics

The effect of position should be relatively uniform for the group under consideration as they are more or less at the same hierarchical level in the organisation.

iii) Characteristics of the Rater

The major effect of rater style is evident in the various types of bias which is often present in ratings. This relates to effects such as leniency, severity and central tendency as well as halo effect and a lack of differentiation amongst ratees. The definition of these various rating errors is approached from a statistical point of view by Saal, Downey and Lahey (1980). The following definitions are offered:

Halo effect - The lack of variability associated with a particular rater's scores for a particular ratee across all the performance dimensions;

Leniency and Severity - The extent to which mean ratings are shifted from the midpoint of the scale in a positive or negative direction;

Central Tendency and lack of differentiation (Range restriction) - the extent to which the ratings given reflect actual performance differences between the ratees. This is generally interpreted statistically as relating to the standard deviation of the ratings assigned to all ratees per dimension. In terms of central tendency the relationship of the mean rating to the midpoint of the scale is also considered. If the two coincide and the standard deviation of the scores is relatively low, central tendency is indicated.

Training has been found to reduce the above error elements significantly as was reported in Chapter Two (Landy and Farr, 1980; Siegel and Lane, 1987; McIntyre, Smith and Hassett, 1984). In particular, it has been found that training on the context of performance appraisal and on rater errors, results in the most accurate ratings. In the case of the bank's appraisal system, extensive training was given to raters on the context of appraisal, the counselling process, rating procedures and errors and the operation of the system itself.

In addition, however, the system also makes allowance for the statistical analysis of the ratings in terms of the potential errors.

In the first instance, all raters receive feedback reporting on the extent to which their ratings appear to have been subject to halo effect with particular individuals identified where the effect may have been very strong.

Secondly, the system analyses ratings per rater in terms of lack of differentiation and standardises raters' ratings to the norm for the overall group within which the individuals rated are to be viewed. The norm is expressed in terms of both the mean and the standard deviation of the appraisal scores.

The effect of this is to increase inter-rater reliability remarkably. Research done on the system in an organisation in Israel has pointed to inter-rater reliabilities of 0.8 and greater (Sattath, 1982). It should be noted that the statistical process which is applied to the scores could be questioned as the ratings are effectively ordinal measures. It has, however, been found empirically in a number of studies that the transformations are effective. The data was therefore treated as interval in the balance of the study.

This approach allows, therefore, for some of the most controversial issues in terms of ratings to be addressed.

iv) Ratee characteristics

The variables which were found to be significant in this context were race and sex differences between raters and ratees. As all the raters and the ratees in the sample considered were white males, this variable was not relevant.

v) Rating instrument and scale development

The appraisal questionnaires were developed in interaction with representatives of line management. Detailed behavioural analysis interviews were conducted to determine which behaviours differentiate good performers from poor performers. These behaviours were then phrased in terms of the items which appear on the questionnaires. This implies that the element of content validity which is questioned by Siegel and Lane (1987) has been addressed. It also means that the issue of trait rather than behavioural appraisal was largely addressed although there are still some elements of the items in the appraisal questionnaire which could

be seen as being trait oriented. In this regard, however, Kavanagh (1970) found that there was no real clear evidence in favour of the assumed superiority of objective, performance oriented traits.

The broader dimensions used in the questionnaire such as Communication/Interaction, are defined in terms of the items which appear within each of the dimensions. This clarifies the meaning of the dimensions. A cluster analysis was also used to ensure that the items within each of the dimensions were grouped together correctly.

In addition, the weighting of the various items in the dimensions as well as of the dimensions overall has also received attention. Items which are found to be relevant to the dimension in question are regressed against the overall score for the dimension to determine weightings. These weightings along with the grouping of the items are used for the calculation of dimension scores for all appraisors - a procedure which ensures common definition of the dimensions and their importance for all appraisors.

The scales used are indicated in the form. As there is no clear-cut evidence in favour of any specific form of rating scale, this is not problematic.

The training given also covers the definition of the dimensions to be used for the appraisal as well as the use of the rating scales.

In summary, then, the bank's performance appraisal system does attempt to address the issues which appear to have been the most relevant in the performance appraisal controversy and as such the ratings achieved are felt to be useful in the current study.

4.2.2.2 THE DETERMINATION OF POTENTIAL IN THE PERFORMANCE APPRAISAL

Although the appraisal questionnaire contains a reference to potential, this was not the source used for the differentiation of those with potential from the rest of the subjects. The assessment was not used as it was felt that the proximity of the assessment and the scores for the other competencies of interest could lead to the effects being confounded.

4.2.3 THE IDENTIFICATION OF SUBJECTS WITH POTENTIAL FOR FURTHER ADVANCEMENT

An independent assessment was used to discriminate between those subjects with potential and those without. A rating of potential was requested from the Regional

General Managers for all the subjects under their immediate control. This rating was done on the basis of a yes-no split. The subject was seen as either having the potential for further advancement or not. These ratings were then debated further with a panel which consisted of the four Regional General Managers, the divisional Human Resources Executive and the Divisional Head to whom all the other participants report. The final ratings were based on the consensus of this panel.

Subjects were thus divided into two categories on the basis of the above assessments. The cases in the database were coded on the basis of the classification.

Although the rating obtained is essentially a "country club" style of rating, it was felt that the panel assessment would give greater objectivity and reliability to the classification. This added objectivity derived from the fact that no single person's judgement was the final decision. All cases were debated by the panel, each of whom could bring a different perspective to bear on the problem. The effects of personal animosities and personality clashes would therefore to a large extent have been moderated by the input of the other members of the panel. It should also be noted that the performance appraisals were done nine months before the assessment of potential. This meant that there was very little possibility of the appraisal information clouding the assessment of potential.

4.3 METHODOLOGY USED

The following methodology was used in the analysis of the data collected through the measures described above. All statistical manipulation of the data was done using the Number Cruncher Statistical System (Hintze, 1987).

4.3.1 DESCRIPTIVE STATISTICS

The sample was described in terms of the various biographical variables. In addition, the distributions of the various measures for the biographical variables, the Locus of Control factors and sub-factors, the Achievement Motivation factors and sub-factors and Cognitive and Interpersonal skills, were also analysed. Finally, simple correlations were done for the I-E, AMQ and performance appraisal scores to determine whether any significant relationships could be determined. Correlations were tested for significance at the 0,05 level.

As was mentioned before, the I-E, AMQ and Performance Appraisal scores are all ordinal measures. This would imply that the median should be used as a measure of central tendency and quartiles as measures of dispersion in the distributions. In addition, the Spearman rank order correlation should be used to determine the relevant correlation coefficients. However,

as was discussed earlier, the data was treated as interval for the purposes of the above analyses as firstly, the two tests used have been validated effectively and secondly, the performance appraisal data had been dealt with as interval data and given satisfactory empirical results in a large number of organisations. Consequently, means and standard deviations were used for measures of the distributions and Pearson correlations were used to determine the strength of the relationships between the relevant variables.

As the study was not a controlled experiment which allowed for the control of the effects of the biographical variables, age, tenure, length of management experience, time in current position, language and educational levels were examined to determine whether there were significant differences between the group with potential and that without for these variables. In the case of age, tenure, length of management experience and time in current position, t-tests were done to determine whether there were significant differences between the means for the group with potential and that without potential. In the case of language, a simple test for a significant difference between the proportions of English speakers and other language speakers was done. Lastly, in the case of the educational levels, simple tests for significant differences between the populations in terms of the proportions of subjects with University and Banking qualifications and those without, were done. All tests were conducted at the 0,05 level of significance.

Variables which were found to differentiate significantly between the two groups were considered for further inclusion in the predictive model.

4.3.2 HYPOTHESIS TESTING

In the case of the first three hypotheses, the data for all the variables was ordinal. Consequently, the first three hypotheses were all tested by means of a non-parametric technique in the form of the Mann-Whitney test. The test indicates whether the central tendency of a variable of interest differs in two populations of interest.

In the case of Hypothesis 4, a discriminant analysis was first done using the assessment of the subjects as either having or not having potential as the dependent, classification variable. The independent variables which were considered for inclusion in the analysis were all those which were found to differentiate significantly between the two populations of interest in the tests of the biographical variables and of the first three hypotheses. The technique generates predictions of the class to which each of the cases considered should belong. It also indicates the classification of each case and the probabilities of the case falling in one or the other of the two relevant categories - namely those subjects with the potential for further advancement and those without.

The hypothesis itself was tested by determining whether there were significant differences between the proportions predicted and the proportions as indicated by the panel assessment. The test was conducted at the 0,05 level of significance.

In addition, an examination was made of the overall number of cases which were correctly classified. The cases which were miss-classified were re-examined and in some instances referred back to the panel for further assessment and re-evaluation. The results of this procedure are reported fully in Chapter Four and discussed extensively in Chapter Five.

4.3.3 COMPARISON WITH THE ERWEE AND POTTAS (1982) STUDY

No attempt was made to do a further factor analytic study of the data to determine whether the factors found in the study by Erwee and Pottas (1982) were replicated. All that was done was a comparison of the descriptive statistics for the two studies on the variables related to the Locus of control and Achievement Motivation results. This was done simply on the basis of attempting to determine whether there were any significant differences between the means of the factors for the populations sampled in the two studies, using t-tests. T-tests were used as only summary statistics in terms of means and standards deviations were available

from the Erwee and Pottas (1982) study. In addition, the two samples considered are large. This comparison was done out of interest only as it did not add materially to the information required for the study in the context of the bank.

5. FEEDBACK TO THE SUBJECTS OF THE STUDY

Feedback to the subjects of the study was provided in the form of a synopsis of the major findings of the study. This was sent out in written form to all respondents. In addition, feedback will be provided to the Head of the Commercial Banking Division in verbal discussion.

6. SUMMARY

The target population was the whole population of branch and area managers in the Commercial Banking Division. Differentiation between those members of this population who have the potential to advance further in the organisation and those who do not, was done on the basis of an initial assessment by the superior with subsequent consensus rating by panel. All the relevant hypotheses were tested against this classification as criterion. The measures used for the collection of data were the Rotter (1961) I-E questionnaire, the Erwee and Pottas (1982) Achievement Motivation Questionnaire and

the bank's internal performance appraisal system. The potential problems with the use of the measures have been discussed and resolved.

The instruments used for Internal Locus of Control and Achievement Motivation had been used in a prior South African study and results obtained were compared against those of the earlier study.

CHAPTER 4

RESEARCH RESULTS

The results of the research study are presented in terms of the following aspects:

- An overall description of the population of interest in terms of the biographical variables;
- An analysis of the distributions of the scores obtained on the I-E scale, the AMQ scale and the Performance Appraisals;
- The results of the testing of the first three hypotheses;
- The results of the discriminant analysis and the testing of the fourth hypothesis as well as details about the model derived from the analysis;
- A brief comparison with the study done by Erwee and Pottas (1982).

1. THE TARGET POPULATION

A total of 138 people were identified in the target population. Of these, 124 returned the questionnaires duly completed. In the cases where questionnaires were not received back, individuals were contacted to enquire as to the reason why. In six cases, it appeared that questionnaires were lost in the mail. Of the remaining eight, one manager stated that he did not have the time to complete the questionnaires, one claimed that he had not received the information in the first instance and the remaining seven promised to return the questionnaires, but failed to do so. It was decided not to prompt them further. The only common characteristic amongst those who did not return anything, was that four of them came from the same Region in the bank.

1.1 PROFILE

A review of the biographical details of the group yields the following profile:

Male, English speaking, white, aged about 44 years with an average length of service in the bank of twenty years of which, on average, nine years have been spent in a managerial position and three and a half years in the current position. All are matriculated, only 5,6% have a university

degree, with a further 9,7% having done some diploma through a university. 61,3% of the group have some banking qualification done through the South African Institute of Bankers. There were no female managers in the group and no black managers.

Details of the distribution of the biographical variables for the total sample are reflected in Table 1. Means and standard deviations for the variable where this is relevant, namely age, banking experience, management experience and time in current position, are given in Table 2.

1.2 PROFILE DIFFERENCES BETWEEN THE POPULATION IDENTIFIED AS HAVING POTENTIAL FOR FURTHER ADVANCEMENT AND THOSE WITHOUT

A further analysis was done on a number of the biographical variables to determine whether or not there were significant differences between the two sub-populations, ie those with potential and those without. The differentiation of the overall sample into individuals with potential and those without by means of the assessment technique described in Chapter Three, yielded twenty-four subjects with potential and a hundred without.

The distribution of the biographical information for the two sub-samples is also reflected in Table 1 whereas the means and standard deviations are shown in Table 2.

TABLE 1: DISTRIBUTION OF BIOGRAPHICAL INFORMATION

Dimension		Total sample n=124	%	With potential n=24	%	Without potential n=100	%
Language	English	72	58.1	18	75.0	53	53.0
	Other	52	41.9	5	20.8	47	47.0
University education	None	105	84.7	18	75.0	87	87.0
	Diploma	12	9.7	2	8.3	10	10.0
	B degree	7	5.6	4	16.7	3	3.0
Banking qualifications	None	48	38.7	8	33.3	40	40.0
	Basic	37	29.8	9	37.5	28	28.0
	Licentiate	12	9.7	1	4.2	11	11.0
	Associate	27	21.8	6	25.0	21	21.0
Age	27 - 30	1	0.8	0	0.0	1	1.0
	31 - 34	4	3.2	2	8.3	2	2.0
	35 - 38	16	12.9	6	25.0	10	10.0
	39 - 42	27	21.8	7	29.2	20	20.0
	43 - 46	39	31.5	5	20.8	34	34.0
	47 - 50	18	14.5	3	12.5	15	15.0
	51 - 54	10	8.1	1	4.2	9	9.0
	55 - 58	8	6.4	0	0.0	8	8.0
	59 - 62	2	1.6	0	0.0	2	2.0
	63 - 66	1	0.8	0	0.0	1	1.0
Banking experience	1 - 4	3	2.4	1	4.2	2	2.0
	5 - 8	3	2.4	1	4.2	2	2.0
	9 - 12	14	11.3	4	16.7	10	10.0
	13 - 16	13	10.5	3	12.5	10	10.0
	17 - 20	32	25.8	5	20.8	27	27.0
	21 - 24	21	17.0	4	16.7	17	17.0
	25 - 28	17	13.7	3	12.5	14	14.0
	29 - 32	5	4.0	2	8.3	3	3.0
	33 - 36	7	5.6	1	4.2	6	6.0
	37 - 40	7	5.6	0	0.0	7	7.0
Management experience	2 - 6	47	38.0	8	33.3	39	39.0
	7 - 11	32	25.8	6	25.0	26	26.0
	12 - 16	25	20.2	5	20.8	20	20.0
	17 - 21	10	8.1	3	12.5	7	7.0
	22 - 26	8	6.4	1	4.2	7	7.0
Time in current position	1 - 4	90	72.6	20	83.3	70	70.0
	5 - 8	23	18.6	4	16.7	19	19.0
	9 - 12	7	5.6	0	0.0	7	7.0
	13 - 16	1	0.8	0	0.0	1	1.0
	17 - 20	3	2.4	0	0.0	3	3.0

TABLE 2: MEANS AND STANDARD DEVIATIONS FOR BIOGRAPHICAL DETAILS

Dimension		Mean	SD
Age	Total	43.49	6.56
	With potential	40.29	5.38
	Without potential	44.26	6.61
Banking experience	Total	19.9	8.19
	With potential	18.13	8.18
	Without potential	20.34	8.18
Management experience	Total	8.79	5.96
	With potential	8.67	5.58
	Without potential	8.82	6.07
Time in current position	Total	3.41	3.55
	With potential	2.01	1.55
	Without potential	3.74	3.81

Tests for significant differences between the two sub-samples were done in the case of language, University education, Banking qualifications, banking experience, management experience and time in current position.

i) Language:

The language distribution for the three groups is total sample, individuals with potential and those without is shown in Figure 6. Visual examination would indicate that there may well be a significant difference in the distributions of the three groups.

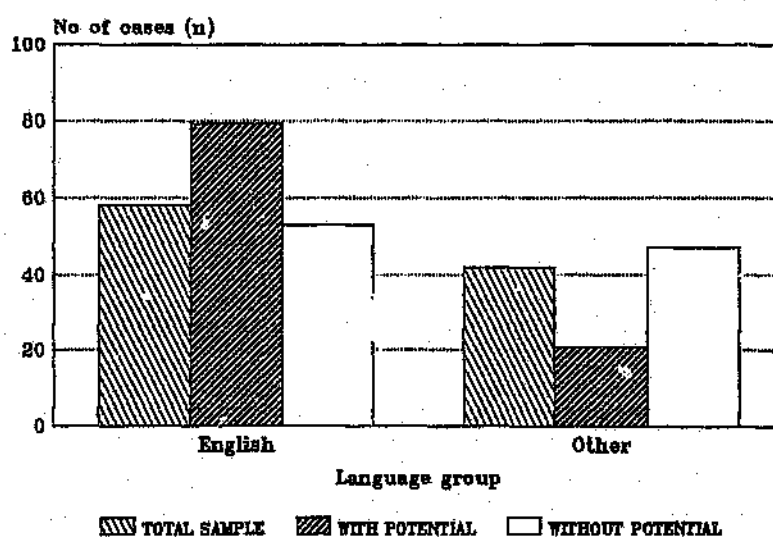


FIGURE 6: LANGUAGE DISTRIBUTION

A test for the difference in the proportion of English speakers in the group with potential as against the group without potential was done. A z-value of 2.333 was found which is significant at the 0,05 level.

In addition, the proportion of English speakers in the overall group was also tested against the group with potential and in this case a z-value of -1.945 was found which is again significant at the 0,05 level.

There was no significant difference between the proportion of "other" language speakers in the overall group and that in the group without potential.

It can therefore be concluded that English speakers are over-represented in the group with potential when compared to the group without potential as well as the overall sample.

ii) University education:

The distribution of the three sub-groups in terms of various levels of University education is reflected in Figure 7.

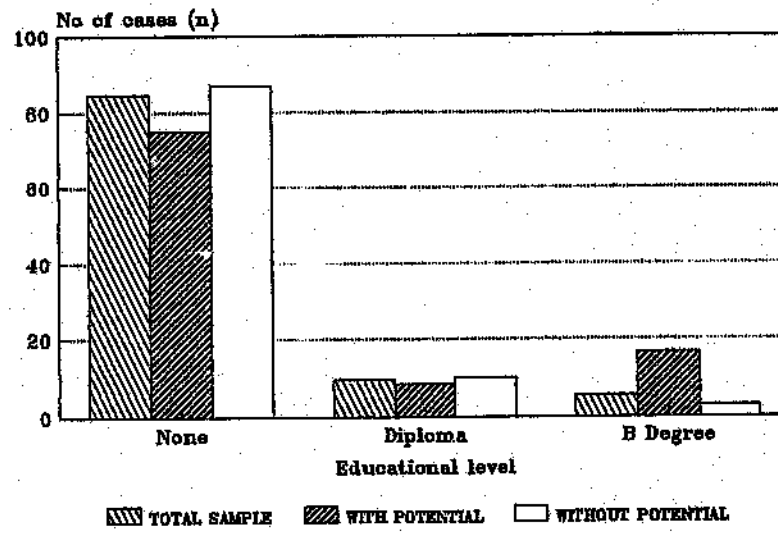


FIGURE 7: UNIVERSITY EDUCATION

Tests for differences in the proportion of people with any type of university education in the two groups did not yield significant results.

iii) Banking qualifications:

The distribution of the three sub-groups across various levels of Banking Qualification is shown in Figure 8.

A test for differences in the proportion of people with banking qualifications in the two groups did not yield significant results.

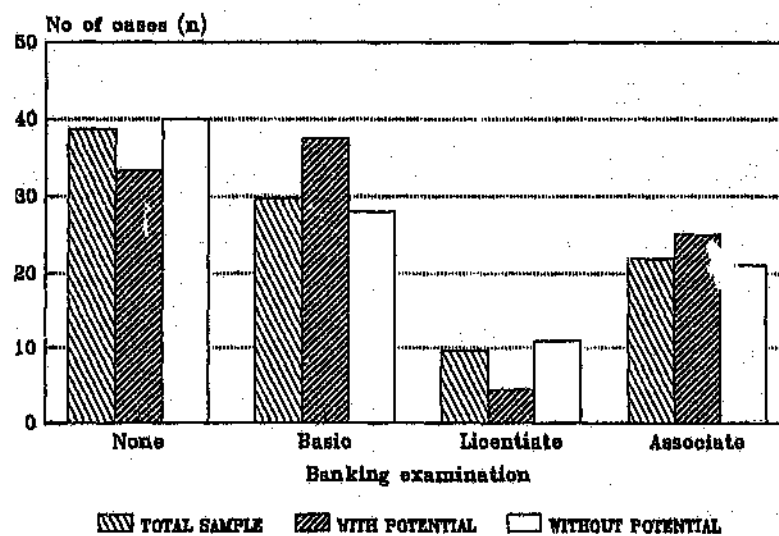


FIGURE 8: BANKING QUALIFICATIONS

iv) Age:

The age distributions of the three sub-groups is plotted in Figure 9. Visual examination would appear to indicate that there could be a relevant difference in the distributions for the sub-groups in this variable.

In this case, a t-test for the differences between the mean ages of the two groups was conducted and confirmed the anticipated difference. A t-value of -3,097 was found which indicates that the mean age of the group with potential and that of the group without differ significantly at the 0,05 level. The group with potential are therefore significantly younger than the group without potential.

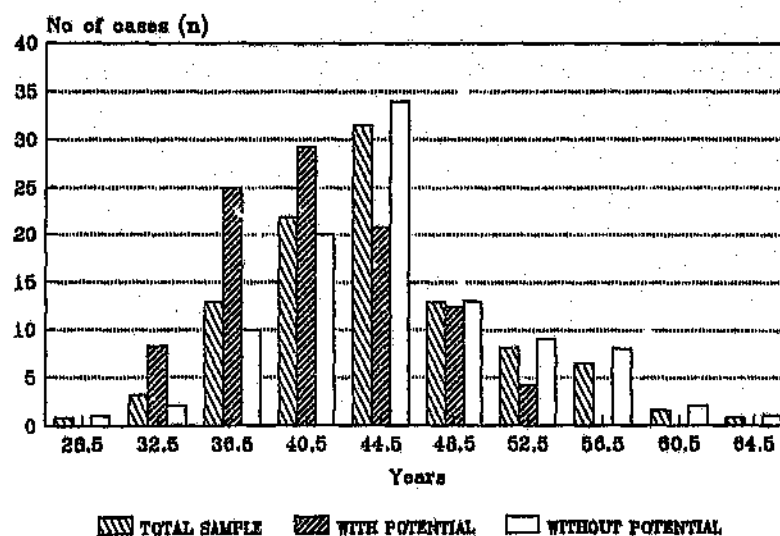


FIGURE 9: AGE DISTRIBUTION

v) Banking experience:

The distribution for the three sub-groups is shown in Figure 10.

A t-test for the differences between the mean banking experience in the two groups did not yield a significant result.

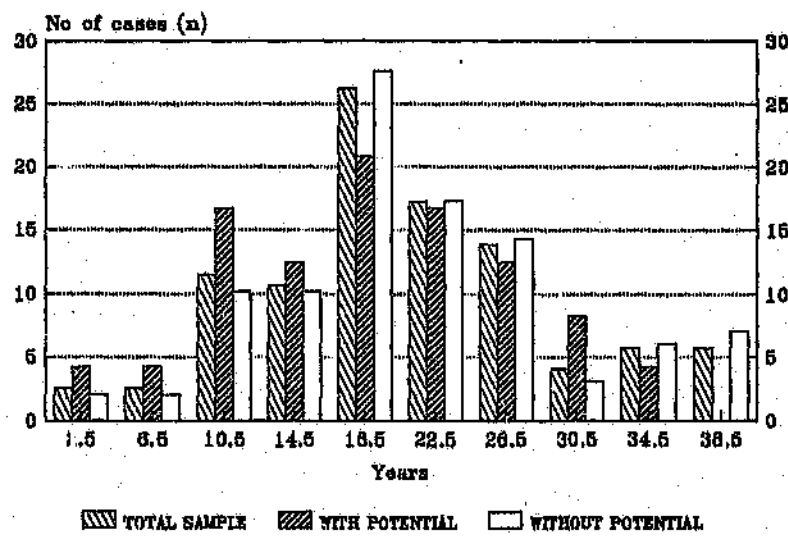


FIGURE 10: TOTAL BANKING EXPERIENCE

vi) Management experience:

The distribution of the three sub-groups is shown in Figure 11.

Again, a t-test did not yield a significant difference for the two groups.

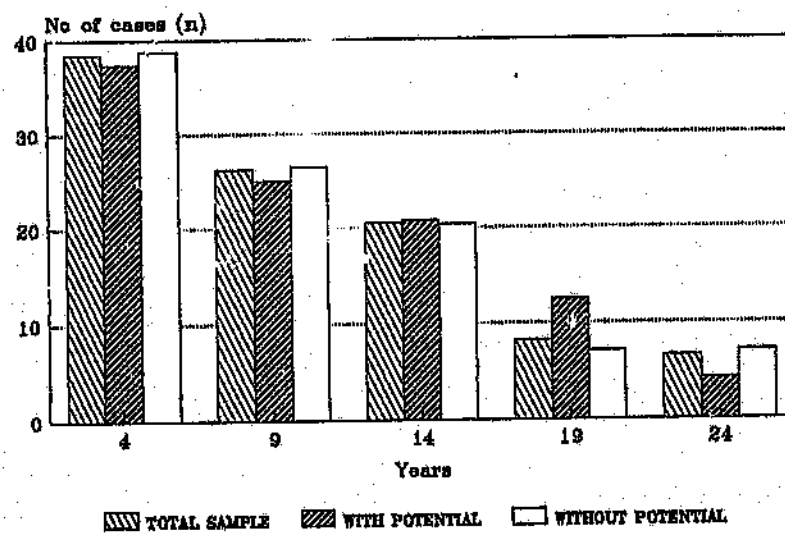


FIGURE 11: MANAGEMENT EXPERIENCE

vii) Time in current position:

As in the case of Age and Language, a visual examination of the distribution shown in Figure 12 would appear to indicate that there may be a significant difference between the various sub-groups.

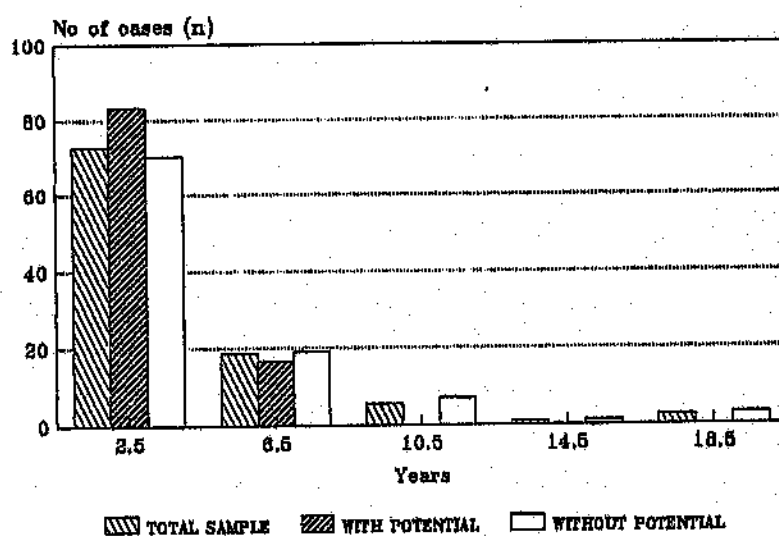


FIGURE 12: TIME IN CURRENT POSITION

This was again confirmed. The t-test for the differences between the means for the two groups gave a t-value of -3,481 which is significant at the 0,05 level. This means that the group with potential have been in their current position for a significantly shorter period than the group without potential.

The results of the t-tests done are summarised in Table 3.

TABLE 3: T-TEST RESULTS FOR BIOGRAPHICAL VARIABLES

Variable	t-value	Probability	Significant at 0,05
Age	-3.097	0.0034	*
Banking experience	-1.187	0.2431	
Management experience	-0.116	0.9085	
Time in current position	-3.481	0.0008	*

It can therefore be concluded that English speakers predominate in the group with potential, that they are somewhat younger than their colleagues in the other group and that they have spent less time in their current positions than their colleagues - perhaps an indication of faster movement through the organisation in general.

It was decided that the differences found in these variables would be investigated further in the attempted construction of a predictive model at a later stage. The variables for which significant differences were found, namely language, age and time in current position, were therefore included in the predictive model.

2. OVERALL INVESTIGATION OF TEST AND PERFORMANCE APPRAISAL SCORES FOR THE SAMPLE

A descriptive analysis of both the test scores obtained from the sample and the performance appraisal scores for the attributes of interest was undertaken. The analysis dealt with both the distribution of the scores and the correlations between the various scores.

2.1 SCORE DISTRIBUTIONS

Tables 4, 5 and 6 show the distribution statistics for the overall sample and the two sub-samples, ie those individuals with potential and those without for the I-E scale and its sub-factors, the AMQ and its sub-factors and the performance appraisal measures.

In addition, Figures 13, 14 and 15 show the distributions for the scores for the I-E scale, the AMQ scale and the Performance appraisal scores. Visually, it would appear that there are

possibly significant differences in the distributions for the variables as postulated. This is examined further in the later section of this chapter which deals with the testing of the hypotheses.

In the case of the I-E scores, the only score distribution which was markedly skewed was that for the factor "Belief in luck". This could be because of the obvious nature of the relevant questions or just simply because bank managers are not very strong on belief in luck due to a self-selection process related to the need to assess lending risks.

In the case of the AMQ, there were also no strong anomalies in the distributions of the scores. The skewness which was found in some of the distributions did not vary greatly from that found by Erwee and Pottas(1982) and was therefore not explored further.

In terms of the performance appraisal scores, it should be noted that the fact that the means of the two performance appraisal dimensions for the total sample are both approximately 68 is a function of the fact that all the scores were standardised on a mean of 68 as part of the process of reducing rater errors which was described in Chapter Three.

TABLE 4: DESCRIPTIVE STATISTICS: I-E SCALE

Dimension	Total sample		With potential		Without potential		Maximum possible score
	Mean n = 124	Standard deviation	Mean n=24	Standard deviation	Mean n = 100	Standard deviation	
Political Control	1.95	1.28	2.29	1.27	1.87	1.25	4
Control over Social relationships	1.2	1.02	1.71	1.08	1.08	0.88	5
Personal Control	1.56	1.22	1.75	1.22	1.52	1.22	7
Belief in Luck	0.62	0.85	0.54	0.72	0.64	0.88	4
IOC Total (on sub-factors)	5.34	3.07	6.29	3.1	5.11	3.04	20
IOC Total (As per Potter)	6.88	3.84	7.65	3.88	6.34	3.28	23

TABLE 5: DESCRIPTIVE STATISTICS: AMQ

Dimension	Total sample		With potential		Without potential		Maximum possible score
	Mean n = 124	Standard deviation	Mean n=24	Standard deviation	Mean n = 100	Standard deviation	
Persistence	17.08	2.75	17.13	3.05	17.07	2.69	21
Awareness of Time	14.05	3.27	15.28	3.28	13.75	3.21	20
Action Orientation	6.77	1.93	6.625	2.34	6.8	1.83	8
Aspiration level	14.9	3.77	16.5	3.15	14.52	3.82	21
Personal Causation	10.18	1.84	10.58	1.53	10.06	1.81	13
Goal-directedness	37.9	6.19	39.04	7.23	37.62	5.82	50
Personal Excellence	25.06	5.04	27.08	4.07	24.58	5.15	34
Amq Total	62.96	9.25	66.13	9.17	62.2	9.18	84

TABLE 6: DESCRIPTIVE STATISTICS: PERFORMANCE APPRAISAL

Dimension	Total sample		With potential		Without potential		Maximum possible score
	Mean n = 124	Standard deviation	Mean n=24	Standard deviation	Mean n = 100	Standard deviation	
Cognitive Skills	88.82	9.23	74.91	8.78	87.12	9.2	100
Interpersonal Skills	65.84	9	74.76	7.57	57.29	8.71	100

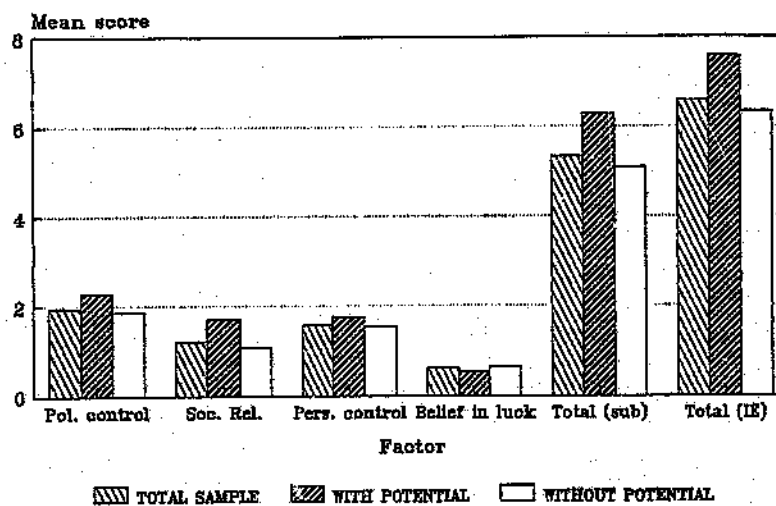


FIGURE 13: I-E SCORE DISTRIBUTION

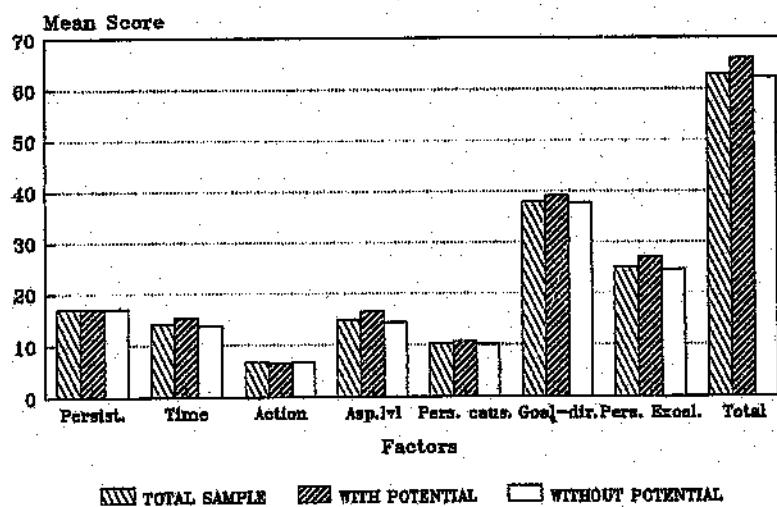


FIGURE 14: DISTRIBUTION OF AMQ SCORES

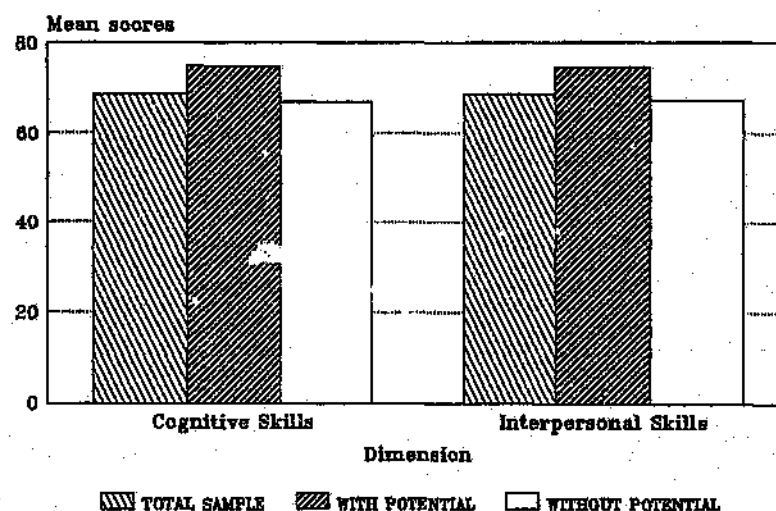


FIGURE 15: P A SCORES

2.2 CORRELATIONS

A correlation matrix for the full sample was derived for all the I-E, AMQ and performance appraisal scores. As the relevant variables are derived from ordinal measures, correlations should have been calculated using the Spearman Rank-order correlation coefficient. However, as was discussed earlier, the fact that both the I-E questionnaire and the AMQ are validated tests and the proven empirical validity of the Performance appraisal scores, was used as justification for treating the data as being of interval level for this purpose and Pearson correlations were calculated.

The I-E factor scores are correlated negatively with AMQ scores in general due to the direction of the scale (ie a high score indicating a greater degree of externality in the relevant dimension).

The results of the Pearson correlations are shown in Table 7. The results were compared to the results reported by Erwee and Pottas (1982) and were also examined for any aspects of interest which could relate to the further analysis required.

i) Comparison to the Erwee and Pottas (1982) study

The correlations obtained by the researchers in the previous study are given in Table 8. In both cases it was found that the sub-factors of the I-E scale and of the AMQ scale are significantly correlated internally within each of the scales. This would appear to indicate that the factors derived are not orthogonal and that there is a relative degree of overlap between the factors. The exception to this in the case of the current study is the sub-factor, Action Orientation. This does not correlate significantly with any of the other sub-factors of the AMQ except for the Factor of which it forms a part, Goal-directedness and the total AMQ score. In the Erwee and Pottas (1982) study, this factor also correlated significantly with Personal Causation and the Personal Excellence factor. This may provide information which could be investigated further at a later stage in a separate study.

TABLE 7: CORRELATIONS BETWEEN I-E, AMQ AND PERFORMANCE APPRAISAL SCORES

Dimension	Persistence	Awareness of Time	Action orientation	Aspiration level	Personal causation	Goal directedness	Personal excellence	Total AMQ	Political control	Control of social relationships	Personal control	Belief in luck	LOC total	Cognitive skills	Interpersonal skills
Persistence	1														
Awareness of time	0.5043	1													
Action orientation	0.3691	0.2707	1												
Aspiration level	0.4395	0.2237	0.0025	1											
Personal causation	0.4494	0.2316	-0.0099	0.581	1										
Goal directedness	0.5254	0.3361	0.6179	0.3139	0.3187	1									
Personal excellence	0.4899	0.252	-0.0018	0.8528	0.7858	0.3499	1								
Q total	0.8192	0.6967	0.4124	0.7295	0.8389	0.8598	0.7793	1							
Political control	-0.2515	-0.1475	-0.0716	0.1959	-0.1817	-0.2162	-0.2167	-0.2628	1						
Control of soc. rel	-0.1497	-0.0901	-0.0909	0.0072	-0.0814	-0.1423	-0.0245	-0.1086	0.3525	1					
Personal control	-0.3803	-0.1377	-0.0542	-0.1669	-0.2599	-0.2239	-0.2204	-0.2592	0.3195	0.311	1				
Belief in luck	-0.3446	-0.1542	-0.0149	-0.2828	-0.2499	-0.2297	-0.3104	-0.3229	0.3158	0.2831	0.3869	1			
C total	-0.3719	-0.1879	-0.0772	-0.2253	-0.2786	-0.2883	-0.2705	-0.3403	0.7425	0.6908	0.7304	0.6428	1		
Cognitive skills	0.0237	-0.0985	-0.0207	0.0484	0.0553	-0.0483	0.0564	-0.0016	0.0607	0.0896	0.1297	0.0938	0.1326	1	
Interpersonal skills	0.0136	-0.1317	-0.025	0.0102	0.0533	-0.0716	0.0271	-0.3332	0.0192	0.0816	0.0775	0.0498	0.08	0.8099	1

y:

Significant at 0.05 level

TABLE 8: CORRELATIONS BETWEEN I-E AND AMQ SCORES (ERWEE AND POTTAS, 1982)

Dimension	Persis- tence	Awareness of Time	Action orienta- tion	Aspira- tion level	Personal causation	Goal directed- ness	Personal excel- lence	Total AMQ	Political control	Control of social relation- ships	Personal control	Belief in luck	LOC total
Persistence	1												
Awareness of time	0.47	1											
Action orientation	0.37	0.35	1										
Aspiration level	0.31	0.1	0.11	1									
Personal causation	0.58	0.38	0.28	0.42	1								
Goal-directedness	0.78	0.86	0.86	0.22	0.57	1							
Personal excellence	0.47	0.24	0.2	0.82	0.73	0.38	1						
AMQ total	0.78	0.71	0.56	0.62	0.72	0.88	0.72	1					
Political control	-0.2	-0.1	-0.04	-0.24	-0.24	-0.31	-0.15	-0.28	1				
Control of soc. rel	-0.13	-0.03	-0.02	-0.04	-0.05	-0.08	-0.05	-0.08	0.28	1			
Personal control	-0.17	-0.11	-0.15	-0.2	-0.11	-0.18	-0.2	-0.22	0.19	0.12	1		
Belief in luck	-0.3	-0.18	-0.15	-0.18	-0.22	-0.27	-0.23	-0.3	0.19	0.23	0.2	1	
LOC total	-0.31	-0.18	-0.12	-0.26	-0.27	-0.45	-0.3	-0.33	0.68	0.63	0.65	0.55	1

Key:

Significant at 0.05 level

In the current study, Action orientation from the AMQ scale has no significant relationship to any of the I-E factors. This confirms the results of the earlier study. As would be expected from the definitions of the factors, both studies found a number of significant correlations between the sub-factor of Personal Causation in the AMQ and the sub-factors of the I-E scale. The notable exception in both studies is Control of Social relationships - an aspect which is discussed further in Chapter Five.

ii) The Performance Appraisal dimensions

Two aspects are noteworthy. Firstly, there are no significant correlations between these dimensions and any of the AMQ or the I-E scale factors. This could be desirable as it could be seen as an indication of the relative orthogonality of these dimensions to the others - they could therefore not be regarded as measuring the same competencies as the other variables. The value would therefore be that they do add a further perspective and dimension to the issue of prediction which is pursued later.

The further aspect of interest is the high correlation between the two performance appraisal dimensions themselves which begs the question of the actual measurement done in the appraisals.

The concern would be the extent to which the high correlation represents the consequences of possible halo effect in the performance appraisals as against genuinely equivalent performance levels on both dimensions for the individual subjects included in the sample. As the reliability and validity of performance appraisal data was discussed at length earlier, this will be borne in mind as a caution in the application of the results of the study.

iii) Age and AMQ scores

A last category of significant scores are those for age and some of the factors of the AMQ. Table 9 shows the correlations. As can be seen, correlations with the sub-factors of Awareness of time, Aspiration level, Personal Excellence and the overall AMQ score are significant at the 0,05 level. The inverse relationship would tend to indicate that the level of Achievement motivation in some aspects decreases with increasing age - a finding which is perhaps not surprising. There may again be field for further investigation in this area.

TABLE 9: CORRELATIONS BETWEEN AGE AND AMQ SCORES

Factor	Persis- tence	Awareness of time	Action orienta- tion	Aspira- tion level	Personal causation	Goal directed- ness	Personal excel- lence	Total AMQ
Age	-0.1088	-0.0663	-0.0663	-0.0663	-0.1534	-0.1534	-0.1534	-0.1534

Key: Significant at the 0,05 level

Overall then, the correlations yielded some results of interest. There are indications of some areas which could provide material for further investigation. However, it was felt that these would be beyond the scope of the current investigation.

3. THE TESTING OF THE HYPOTHESES

3.1 HYPOTHESIS 1

There is no significant difference between the mean scores for Locus of Control for those individuals with potential for further development and those without.

The hypothesis was stated in testable form as:

H₀: The mean of the total I-E score for the population with potential is identical to that for the population without potential.

H_a: The mean of the total I-E score for the two populations differs.

Sub-hypotheses:

There are no significant differences between the mean scores for the sub-factors of Locus of Control namely Political Control, Control over Social Relationships, Personal Control and Belief in Luck for those individuals with potential for further development and those without.

This generates four separate sets of hypotheses where each is of the form of:

H₀: The mean of the relevant sub-factor score of the population with potential is identical to that for the population without potential.

H_a: The mean of the relevant sub-factor score for the two populations differs.

In the case of the main hypothesis and each of the sub-hypotheses, the results of the Mann-Whitney tests used are shown in Table 10 under the heading of "I-E test scores".

TABLE 10: MANN-WHITNEY TEST RESULTS

Variable	z value	Proba- bili- ty	Signf at 0,05
IE TEST SCORES			
Total I-E	1.6949	0.090	
Political control	1.3724	0.169	
Control soc. rel.	2.5013	0.012	*
Personal control	0.9328	0.350	
Belief in luck	-0.199	0.842	
AMQ TEST SCORES			
Total AMQ	1.9195	0.054	
Persistence	0.2593	0.795	
Time awareness	1.9953	0.046	*
Action orientation	-0.031	0.974	
Aspiration level	2.5013	0.012	*
Personal causation	0.8822	0.377	
Goal directedness	1.3692	0.170	
Personal excellence	2.3211	0.020	*
PERFORMANCE APPRAISAL			
Cognitive skills	3.5303	0.000	*
Interpers. skills	3.7470	0.000	*

The main hypothesis could not be rejected at the 0,05 level of significance, which indicates that there is no significant difference in overall propensity to internal or external locus of control between the two populations of interest.

The sub-hypothesis that the distributions of the scores for the sub-factor, Control over Social Relationships differs between the population with potential and that without potential, was rejected at the 0,05 level of significance.

There is therefore a significant difference in the extent to which people with potential and those without perceive themselves to be in control of social relationships. The individuals with potential appear to perceive themselves as having a greater tendency towards an external locus of control in this factor than those without potential.

None of the other factors yielded significant differences. The implications of this finding in the light of the relevant theoretical and organisational context is discussed in Chapter Five.

3.2 HYPOTHESIS 2

There is no significant difference between the mean scores for Achievement Motivation for those individuals with potential for further development and those without.

The hypothesis was stated in testable form as:

H₀: The mean of the total Achievement Motivation score for the population with potential is identical to that for the population without potential.

H_a: The mean of the total Achievement motivation score for the two populations differs.

Sub-hypotheses

There are no significant differences between the mean scores for the sub-factors of Achievement Motivation namely Goal Directedness and its sub-factors, Persistence, Awareness of Time and Action orientation, and Personal Excellence with its sub-factors, Aspiration level and Personal Causation, for those individuals with potential and those without.

This generates seven separate sets of hypotheses where each is of the form of:

H₀: The mean of the relevant
 sub-factor score for the
 population with potential is
 identical to that for the
 population without potential.

H_a: The mean of the relevant
 sub-factor score for the two
 populations differs.

In the case of the main hypothesis and each of the sub-hypotheses, the results of the Mann-Whitney tests used are shown in Table 10 under the heading of "AMQ test scores".

The main hypothesis could not be rejected which would indicate that there are no significant differences in overall level of Achievement motivation in the two populations.

However, the sub-hypotheses for Awareness of Time, Aspiration level and Personal Excellence could all be rejected at the 0,05 level of significance. This indicates that there are significant differences between the two populations in these areas. The further implications of this finding is explored in depth in Chapter Five.

3.3 HYPOTHESIS 3

There are no significant differences between the mean scores as measured by performance appraisal for the cognitive skills and the interpersonal skills of those individuals with potential for further advancement and those without.

Two testable hypotheses were generated from this viz:

H₀: The mean of the scores for cognitive skills for individuals with potential is identical to that for individuals without potential.

H_a: The mean of the scores for cognitive skills for the two populations differs.

and

H₀: The mean of the scores for interpersonal skills for individuals with potential differs from that for individuals without potential.

H_a: The mean of the scores for interpersonal skills for the two populations differs.

The results of the Mann-Whitney test for the two hypotheses are shown in Table 10 under the heading "Performance Appraisal".

Both the hypotheses were rejected at the 0.05 level of significance. There is thus a significant difference in the scores for both cognitive and interpersonal skills between the populations of those individuals with the potential for further advancement and those without.

3.4 HYPOTHESIS 4

As a consequence of the results of the above hypothesis testing as well as of the results reported earlier for the biographical details, the independent variables selected for the construction of a predictive model were the following:

Language
Age
Time in Current Position
Control over Social relationships
Time awareness
Aspiration level
Cognitive skills
and Interpersonal skills.

The biographical variables were included in order to determine the potential improvement in predictive accuracy which could be achieved in this manner.

The group identification variable used, was the classification of the subjects according to the panel assessment of whether or not they had the potential for further advancement. As shown before, the 124 cases received in total was divided into 24 cases with potential for further advancement and 100 without. Of these cases there were 120 cases with complete sets of data which enabled the inclusion of the cases in the subsequent analysis.

The discriminant analysis was firstly performed on all the identified variables. Table 11 gives the classification of the subjects in terms of predicted and actual grouping as calculated by the discriminant analysis. 91,3% of the subjects with potential were classified correctly by the model whereas only 79,4% of the subjects without potential were classified correctly. In addition, the value of Wilk's Lamda (Hintze, 1988) is 0,7034 for the given variables - this means that only roughly 30% of the variability in the classification was accounted for by the independent variables. This is quite low and casts doubt on the effectiveness of the classification.

TABLE 11: CLASSIFICATION MATRIX

		Predicted		
		Total	With potential	Without potential
Actual	Total	120	43	77
	With potential	23	21	2
	Without potential	97	22	75

Percentage reduction in classification error: 60.0

The hypothesis stated, namely:

The proportion of people who are predicted to have potential by the model will be identical to the proportion of people who actually have potential, as assessed by the panel;

was restated in testable form as:

H₀: The proportion of people predicted by the model to have potential is identical to the proportion of people assessed by the panel to have potential;

H_a: The proportion of people predicted by the model to have potential differs from the proportion of people assessed by the panel to have potential.

The null hypothesis was rejected at the 0.05 level of significance. This implies that the proportion of people predicted by the model to have potential differs significantly from the proportion as assessed by the panel to have potential. This would seem to provide further evidence of the inadequacy of the model.

However, it should also be noted that the model did classify a total of 96 cases correctly, ie 80% of the subjects were correctly classified by the model - a finding which appear to support at least a measure of predictive accuracy for the model.

Despite the lack of statistical support for the hypothesis, the discussion in Chapter Five highlights some of the very useful issues which emerge from this attempt at model construction.

In particular, the model suggests other approaches to the issue of the identification of potential and suggests that there may be a way in which the judgement of assessors can be supplemented.

4. COMPARISON WITH THE ERWEE AND POTTAS (1982) STUDY

As discussed in Chapter Three, t-tests for the differences between the means of the results achieved by Erwee and Pottas (1982) in their sample of managers and the means obtained in the current study were done. In this instance t-tests were done despite the ordinal nature of the data as the test is validated and the results of the Erwee and Pottas (1982) study were given in grouped form only, in terms of means and standard deviations.

Table 12 gives the means and the standard deviations from the Erwee and Pottas (1982) study as well as the t-values and the probabilities found in the testing procedure. As can be seen, the only factor which gave significant results was the sub-factor "Control of Social Relationships" of Locus of Control. The fact that this was the only factor of the Locus of Control scale which differentiated effectively between the population with potential and that without potential raises some interesting questions which are discussed in Chapter Five, particularly as the subjects in the current study scored lower than the Erwee and Pottas (1982) subjects for this factor.

TABLE 12: MEANS AND STANDARD DEVIATIONS FOR THE
ERWEE AND POTTAS (1982) STUDY

Dimensions	Mean n = 101	Standard deviation	t-value	Proba- bility
Political control	1.77	1.4	-1.003	0.3159
Control over Social relationships	1.65	1.4	2.699	0.0073
Personal Control	1.67	1.5	0.5941	0.5531
Belief in Luck	0.82	0.9	0	1
UOK Total	6.85	3.5	0.5874	0.5569
Persistence	16.91	3.1	-0.4302	0.667
Awareness of Time	13.52	4.2	-1.0376	0.3008
Action orientation	6.42	2.3	-1.2366	0.2177
Aspiration level	15.44	4.1	1.0186	0.3084
Personal causation	9.62	2.4	-1.8595	0.0645
Goal-directedness	36.84	7.6	-1.1293	0.2601
Personal Excellence	25.06	5.6	0	1
AMC Total	61.9	10.9	-0.7759	0.4387

5. SUMMARY

This chapter presented the results of the analysis of the data which was gathered for this study. It has looked at a profile of each of the two populations of interest in biographical terms and has also identified significant differences between the populations of interest in a number of aspects.

An attempt was made to construct a predictive model based on the variables which were found to differentiate significantly between the

population with potential and that without. The model was moderately successful, but should probably be viewed more in the light of a means of challenging the purely armchair, country-club type of assessment than as an absolute mechanism for distinguishing between managers with potential and those without.

Finally, the results obtained for this group of subjects in terms of their scores on the I-E and AMQ scales were compared to the Erwee and Pottas (1982) study to determine whether any significant differences were detectable between the two populations. It was found that only "Control over Social Relationships" in the I-E scale showed a significant difference between the two groups.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

1. OVERVIEW OF THE STUDY

The banking industry has become increasingly competitive over the last few years. This has been the result of the deregulation of mutual agreements amongst the banks themselves, the redefinition of the financial industry as a whole due to Government deregulation and increasing pressure on the banks from new entrants into their traditional markets. There has also been greater competition for more specialised resources and in particular, for management skills. At the same time, the development of a cadre of "new age" managers with the leadership qualities which are required to lead organisations through the turbulent times we are facing, has intensified the search for management talent.

The study was prompted by the need to develop a means of identifying people with managerial potential in a relatively uncomplicated and cost

effective way. A further requirement was that the method used, should allow for the initial screening of a relatively large number of people. A number of other techniques such as the Management Development Centres (MDC) - an in-house assessment centre - and in-depth psychological testing are available for this purpose.

However, these techniques require specialised resources in terms of qualified and registered psychologists. Furthermore, the MDC is extremely expensive and can only deal with a limited number of people over any given period of time, as no more than twelve candidates can be handled in any one four day session.

It was decided that the theoretical framework provided by the competency model proposed by Boyatzis (1982) would be useful in investigating those competencies which would be required for success in a managerial role and which could therefore distinguish between individuals with the potential for further advancement and those without.

A review of the literature on leadership and the requirements for management of the organisations of the nineties, led to the identification of a number of competencies which could be significant in differentiating between individuals with the potential for meeting the new demands and those without. The full list of competencies compiled

was screened on the basis of relative importance and also of the practical requirements of the organisation. Locus of Control, Achievement Motivation and Cognitive and Interpersonal skills emerged from this filtering process as a set of competencies which were generally considered to be important by various authors and by individuals interviewed within the bank. In addition, the competencies could be readily assessed and appeared to allow the required differentiation.

It was proposed that individuals who have the potential for further advancement would tend to perceive themselves as internally controlled relative to those who do not have further potential. In addition, it was also proposed that individuals with potential would have a higher need for achievement than others. They would also have stronger cognitive and interpersonal skills than those individuals who would not progress further in the organisation. Finally, it was proposed that it would be possible to construct a predictive model, based on the strengths of the above competencies for particular individuals, which would allow the classification of individuals into two groups - those with the potential for further advancement and those without the potential.

An issue which was considered as a potential problem was that of only assessing individuals within one organisation. However, it was decided that as this would be a pilot study and as

aspects such as management style and therefore potential for advancement are strongly culturally dependent (Kerr and Jermier, 1978; Hersey and Blanchard, 1982; Burke, 1987), this limitation would not impact on the value of the study for the bank. It should, however, be borne in mind as a caution in attempting to generalise the findings of the study to any other organisations.

The study was conducted within the population of branch and area managers - a population of 138 people. A set of questionnaires consisting of a basic biographical questionnaire, the I-E questionnaire (Rotter, 1961) to measure the degree to which the individual is internally controlled and the Achievement Motivation Questionnaire (Pottas et al, 1980) to measure the level of need for achievement of the individual, was sent out to all the area and branch managers. Performance appraisal information from the bank's internal performance appraisal system was used to determine the strength of Cognitive and Interpersonal skills for each of the subjects. This information was available on the bank's computer system and was extracted from the database. Complete datasets were available for 123 subjects.

The overall group of subjects was divided into two groups - those with the potential for further advancement and those without potential. This was done on the basis of assessments by a panel

consisting of the individual's immediate superior, the superior's peers in other regions, the divisional head and the Human Resources Executive for the Division.

The propositions about differences in Locus of Control, Achievement Motivation, Cognitive skills and Interpersonal skills between the subjects with potential and those without, were tested by means of Mann-Whitney tests as the data was collected by means of ordinal measurements. In addition to these competencies, the biographical data related to age, language, education and work experience were also tested to determine whether there were any significant differences between the two groups.

It was found that people with potential are predominantly English speaking, are younger and have spent less time in their current positions than their colleagues.

It was further found that within the overall competency of Locus of Control, Control of Social Relationships differentiated significantly between the two groups. In the Achievement Motivation competency, Awareness of Time, Aspiration Level and Personal Excellence were found to show significant differences between the two populations. Finally, the levels of Cognitive skills and of Interpersonal skills were found to be significantly different in the two populations.

A discriminant analysis was performed using the competencies which were found to differ significantly between the two populations as well as language, age and time spent in current position as independent variables. The discriminant function derived, obtained relative success in the classification of the two populations. However, there were a number of mis-classified cases which were investigated further. This further investigation raised some questions as to the original classification of the subjects.

2. DISCUSSION OF THE RESULTS

The discussion of the results will be presented in terms of findings related to the biographical variables and each of the initial propositions stated and the hypotheses which were tested in attempting to substantiate the propositions.

2.1 BIOGRAPHICAL PROFILES

The biographical variables for the two groups were investigated in depth as it was not possible to control for the effects of these variables in the overall selection of the candidates for the two populations. In addition, as this was not an experimental design, but rather a post hoc study, it was also not possible to design the research conditions in such a way as to negate the potential influence of these aspects.

It was found that language, age and length of time spent in current position differed between the group with potential and that without.

2.1.1 LANGUAGE

In the case of language, it was found that English-speakers were represented in a significantly higher proportion in the group with potential than in the overall group. In addition, the proportion of English-speakers in this group was significantly higher than in the group without potential. It is possible that this is a circumstance which has arisen from the actual distribution of the bank branches. The major proportion of the bank's business, as for any other South African organisation, is in the PWV area. This means that managers with greater potential tend to be placed in this area. As the business language of the area tends to be predominantly English, it may be that English-speakers are favoured by the environment.

A further speculative reason for this difference relates to the culture of the English-speaking South African population as compared to that of the Afrikaans-speaking population. It is generally perceived that the English-speaking population come from a more liberal, less authoritarian background than the Afrikaans-speaking population. In fact, there has been comment that there is no tradition of Afrikaner liberalism at all (Du Toit, 1987). It

may be that the requirements of leadership in the new organisation with the concomitant empowerment of people, participation and flattening of hierarchical structures is somewhat foreign to the Afrikaans culture.

2.1.2 AGE

The results found, showed that the average age of the subjects with potential was 40,29 years as against an average age of 44,28 years for the group without potential - a difference which is statistically significant. This is not a surprising result, as individuals with potential are generally seen to progress more rapidly through the organisation than others - an explanation which is also substantiated by the findings on the time spent in current position. As the level of the whole group of subjects was relatively similar, the group with potential had, in effect, arrived at this level sooner than their colleagues.

2.1.3 TIME SPENT IN CURRENT POSITION

Subjects with potential were found to move through the ranks of the organisation more rapidly than their colleagues, spending less time in any one position. On average, those people with potential had been in their current positions for about two years as compared to nearly three and a half years for those without

potential. Again, this is not a surprising finding. The only aspect which could be questioned, is whether the average age of 40, and the time in current position of two years is not perhaps still too old and too long respectively. If the organisation is going to achieve what it needs to do, it may be that even faster movement is going to be required. This may point to the need for the introduction of some form of concentrated management development process in the organisation in which potential high-fliers are moved through the organisation as rapidly as is sensible to ensure succession.

2.1.4 OTHER BIOGRAPHICAL VARIABLES

It is of interest that although total banking experience and management experience are quite highly correlated with age (age:management experience correlation is 0,7211 and age:banking experience correlation is 0,6371), neither of these variables were significantly different for the two groups.

In the case of University qualifications, the overall number of people with some form of qualification is quite small. Only 15,3% of subjects had some form of University qualification (including part-time diplomas) and only 5,6% of the subjects had a degree. This means that the samples have very small numbers of people in them and this may have led to the lack

of significance in the results obtained here. In the case of Banking qualifications, the picture is somewhat different with 61,2% of the subjects having some form of qualification. It may be that the difference here is not significant as this is virtually an entrance requirement for anyone within the management ranks in the organisation.

In general, then, the two populations do appear to differ in terms of language, age and time in current position. As a result of this, age and time in current position were taken into account in the construction of the model tested in the discriminant analysis.

2.2 THE RESEARCH PROPOSITIONS

Four sets of propositions were stated initially. The results obtained in testing the hypotheses generated from each of these propositions is discussed in depth in this section. The relationship of the findings to the theoretical framework and other research findings reviewed in Chapter Two is also considered and discussed.

2.2.1 PROPOSITION 1: THE ROLE OF LOCUS OF CONTROL

It was proposed that individuals with the potential for further advancement would be more likely to perceive themselves as being internally controlled than those without the potential. This was restated in terms of testable hypotheses

which looked at the differences between the population with potential and that without in terms of:

Their perceptions of themselves in terms of overall Locus of Control as measured by the I-E scale;

Their perceptions of themselves as measured by the I-E scale in terms of the sub-factors of Locus of Control identified by Erwee and Pottas (1982), namely Political Control, Control of Social Relationships, Personal Control and Belief in Luck.

Initial examination of the means of the distributions of the I-E total score and the sub-factor scores, showed a completely unexpected result when compared to the previous literature on leadership and management reviewed in Chapter Two.

The scores for those individuals with potential generally appeared to be higher than for those without potential. This implies that people with potential could well perceive themselves to be more externally controlled than those without potential. This conflicts directly with the theoretical model built up from the literature which indicated that leaders would tend to be more internally controlled than other individuals.

In testing the hypotheses statistically, the only factor in which the means of the distributions for the two populations differed significantly, was the factor for Control of Social Relationships. This would appear to indicate that individuals with potential tend to perceive themselves as more passive in Social relationships than those without potential.

The distributions of the overall I-E score would differ significantly at a probability level of 0,10 - an indication that there may also be some trend evident in terms of the general direction of Locus of Control, with a tendency towards externality being evident.

As was stated, the result is unexpected in the light of the theoretical model. However, it is not completely surprising within the context of the environment in which the study was conducted. The apparent feelings of helplessness and powerlessness which were detected in the open interviews with managers mentioned earlier, were an indication that success in the environment of the bank did not necessarily mean that an individual had to have an internal Locus of Control.

It would appear that although progress in the organisation is possibly dependent to some extent on the efforts of the individual, individuals are relatively powerless in the management of their own careers. In fact, the notion that an

individual can and should be proactive in the management of their own career is relatively foreign to most people within the organisation. In general the feeling is that one should go where you are needed and sent. There is also the thought that if you do what is expected of you, the appropriate moves will come your way. None of this requires an attitude of being in control of your own destiny or the feeling that you have the power to control your own rewards and punishments.

In particular in the area of the control of social relationships, it is possible that those managers who are seen to have the potential for further progress, are in tune with the requirements of social relationships within the organisation and work within these and abide by the requirements passively, rather than taking an active role.

It should also be noted, however, that the scores for both groups are still relatively low - a fact which would tend to indicate that there is still more of a tendency towards some form of internal control, rather than a complete tendency towards externality.

It should be borne in mind that any classification errors which have been generated by the assessment method used for potential could impact on the significance of the results. The raters consisted of a panel which was made up

largely of people who were in charge of the people being assessed. The possibility that these assessors would prefer individuals who are more externally controlled - particularly with respect to the way in which they manage social relationships with their superiors, the panel, should not be ignored. The panel may also have preferred individuals who are not likely to "buck the system", as they would be easier to manage and would also create less threat. This issue is also discussed further in the section which deals with the construction of the predictive model.

The results should also be viewed in the context of the research by Bazerman (1982) which was reviewed earlier. He proposed that performance would be dependant on the degree of fit between the extent to which an organisation imposes control and the individual's capacity to use control. The findings may therefore also imply that the organisation is not able to tolerate individuals who are too internally oriented as it tends to be somewhat autocratic in nature and tends to impose a large amount of external control on individual members. Individuals who are externally controlled would adapt more readily to the environment and would therefore perform better.

Work by Andrisani and Nestel (1976) which looked at the stability of Locus of Control in the face of various types of work experiences, may also be

relevant here. Their study found that actual work experience may influence the direction of individual Locus of Control perceptions as well as the other way around. If an individual therefore experiences a work environment in which a proactive stance is not necessarily encouraged, he may change his own perceptions as to his Locus of Control.

Lastly, the curvi-linear relationship between Locus of Control and performance which was found by Boyatzis (1982) should be considered. He found that both good and poor performers perceived themselves as being internally controlled. It may be that managers who are not successful and are not seen as having the potential for further advancement may be still be more internally controlled than their colleagues with potential - particularly in the area of control of social relationships. They may, however, be behaving inappropriately as a result of this - a factor which could disqualify them from further advancement.

In summary then, it would seem that those individuals in the organisation who are seen as being the high-fliers, generally perceive themselves as being relatively more externally controlled and significantly so in the area of control of social relationships. This result is somewhat surprising in the light of the literature reviewed, but is not unexpected in the context of the organisational culture within which the relevant people are functioning. The

issue of fit between the individual and the culture, previous experience with the environment and the possible inappropriateness of behaviour exhibited, could be some of the reasons for the apparent discrepancy between the literature and the results of the study. In addition, the effect of having a rating panel consisting of individuals who are in charge of the people being rated, should also be taken into consideration as they may tend to choose individuals who maintain their own relative comfort zones rather than those individuals who may be out of line in many instances.

The consequences of the above results for the organisation are interesting in practical terms. If people who are their "own people" (Zaleznik, 1977; Bennis, 1989) are really going to be required to manage the organisation through the nineties, the organisation will have to review the criteria by which it chooses its leaders and managers radically. This aspect is discussed further in a later section dealing with the implications of the study.

2.2.2 PROPOSITION 2: THE ROLE OF ACHIEVEMENT MOTIVATION

It was proposed that individuals with the potential for further advancement would have a greater need for achievement than those without the potential for further advancement. The

proposition was restated in testable form in terms of the differences between the two groups of individuals on measures of:

Overall strength of Achievement Motivation as measured by the Achievement Motivation Questionnaire (AMQ) (Boshoff et al., 1980);

The strength of each of the sub-factors of Achievement Motivation identified by Erwee and Pottas (1982). These factors are Persistence, Awareness of Time, Action Orientation, Goal-directedness, Aspiration level, Personal Causation and Personal Excellence.

In addition, the relationship between age and the strength of Achievement Motivation was also examined.

i) The relationship between age and Achievement Motivation

The results which were obtained firstly indicated an inverse relationship between age and Achievement Motivation. This means that the strength of Achievement Motivation would tend to decrease with increasing age. In particular, significant correlations were found with the factors of Awareness of time, Aspiration level, Personal causation and Personal excellence as well as the total AMQ score. This result is not

unexpected. Kimmel (1974), for example, refers to a model of changing motivation throughout life in which the so-called "growth-expansion" motives of which Achievement Motivation is an integral part, are the predominant motives in the first half of an individual's life. This changes in mid-life, when the individual senses that the period of expansion in his life is at an end. He then goes into a phase of contraction where goals become focused on stability and retirement. The change may also take place due to the relative degree of satisfaction of some of the expansion motives which is experienced at a later stage of life.

The relationships found in this study is therefore consistent with general patterns found by other researchers. This could also be one of the reasons why age has been found to differentiate between the population with the potential for further advancement and their colleagues.

ii) Overall findings for Achievement Motivation

In the case of Achievement Motivation itself in the two populations, there are three findings of interest. In the first instance, it was found that the means of the distributions of the overall score for Achievement Motivation as measured by the AMQ did not differ between the two populations. However, one of the sub-factors

of the Goal-directedness cluster, Awareness of Time and one of the sub-factors of the Personal Excellence cluster, Aspiration level, as well as the Personal Excellence factor itself, did show significant differences between the two populations.

In all cases, the level of the factor was higher for the population with potential than for the population without potential.

These findings confirm part of the second set of propositions. Closer examination of the areas which were found to be significant leads to additional information of interest.

iii) Awareness of Time

The definition of Awareness of Time implies that individuals who score highly in this factor like structure in their lives and are well-prepared for any eventualities. They ensure that their time management is impeccable. They also have a future orientation which, according to the definition, includes precise plans and definite career goals.

It is understandable that an aspect such as this should be seen as relevant in the environment of the bank. The bank is a highly structured environment in which a great number of people have to interact in a co-ordinated manner. This is particularly true for the management of the organisation where one of the primary roles relates to the co-ordination and integration of the efforts of others.

The only element of the definition which would seem to contradict the earlier findings in respect of Locus of Control, is the aspect of career goals. However, if this is examined closely, it is not necessarily contradictory either, as an individual may well have goals without having the certainty that he is able to influence the achievement of these goals directly himself. It is also, however, of interest to note that this sub-factor of the AMQ did not, in fact, correlate significantly with any of the sub-factors of the I-E scale and had a very low, though somewhat significant correlation with the overall I-E score. It may therefore be that the element of proactivity which is implied in the definition should not be over-emphasised. It would seem that the emphasis is on time management rather than proactive planning.

iv) Aspiration level

Once again, there is a need to consult the precise definition of the sub-factor before discussing the findings.

Aspiration level embodies the need to take calculated risks and respond to challenges which may not necessarily lead to success. The individual sets high performance standards and demanding goals for himself and for others in his environment. Such people are prepared to go to great lengths to achieve what they have set out to do. They may prefer to run their own business rather than working for an employer - an entrepreneurial stance.

If this is compared to the original definition of Achievement Motivation as given by Murray (1938) and quoted earlier in this report, namely:

"To accomplish something difficult. To master, manipulate, or organize physical objects, human beings or ideas. To do this as rapidly and independently as possible. To overcome obstacles and obtain a high standard. To excell oneself. To rival and surpass others. To increase self-regard by the successful exercise of talent." (in Maddi, 1976, p. 287);

it is apparent that the sub-factor of Aspiration level closely mirrors the classic definition of Achievement Motivation. Both embody striving for perfection and excellence in the face of difficult odds as well as an element of competitiveness. If the work on leadership reviewed in Chapter Two is revisited, it is very apparent that this specific element is a key ingredient in the make-up of leaders. It is, therefore, reassuring to find that this

orientation is seen as a relevant one in distinguishing between those individuals in the bank with potential and those without in the current study.

An aspect which could cause concern in the context of the organisation is that progress is generally regarded to be synonymous with upward movement through a hierarchical structure. If this is the case, it could be problematic in creating an organisation which has less levels and is more responsive to the demands of the environment (Drucker, 1988; Kanter, 1989).

v) Personal Excellence

The cluster consists of Aspiration level and Personal causation. It is therefore defined both in terms of striving for excellence, needing demanding challenges and believing that success will be due to one's own efforts. In addition, the sub-factor, Personal Causation correlates significantly with three of the four sub-factors of Locus of Control as well as with the total score. This would imply that the two constructs are similar. It is noteworthy, however, that Personal Causation does not correlate significantly with Control over Social relationships, the one factor of Locus of Control which differed significantly between the two populations. This result could therefore be seen to contradict that found with respect to Locus of Control to some extent.

The apparent contradiction can be clarified by noting that the significance found for the cluster as a whole, could be due to the effect of the Aspiration level factor only as the Personal causation factor was not found to differentiate significantly amongst the two groups at all. The score for the cluster as a whole is simply the arithmetic sum of the scores for the two individual sub-factors. As there are twenty-one items in the Aspiration level factor and only thirteen in the Personal causation factor, this means that the Aspiration level factor is effectively weighted more heavily than the Personal causation factor. This can also be seen from the fact that the correlation between Aspiration level and Personal excellence is 0,9528 whereas that for Personal causation and Personal Excellence is only 0,7295.

In summary, then, the study has substantiated the proposition that there are different levels of Achievement motivation between the population with potential and that without. The aspects of Achievement motivation which are significantly different between the populations are Awareness of time and Aspiration level. In the case of Awareness of time, this is probably a reflection of the culture of the organisation. The sub-factor, Aspiration level, is seen as the "purist" part of Achievement motivation as defined originally. It confirms the work done by previous researchers in the field with respect to the essential nature of Achievement motivation as a competency required by leaders.

2.2.3 PROPOSITION 3: THE ROLE OF COGNITIVE AND INTERPERSONAL SKILLS

In the third proposition, it was stated that the level of cognitive and interpersonal skills displayed by individuals would differ between the population with the potential for further advancement and that without the potential. The proposition was broken down into two separate testable hypotheses in which the first stated that the level of cognitive skills would differ for the two populations and the second that the level of interpersonal skills would differ for the two populations.

i) Cognitive skills .

Cognitive skills were defined as consisting of analytical ability, conceptualisation skills, the ability to innovate and show initiative, flexibility and the ability to think in holistic, systems terms within the context of an overall, broad picture. This definition was operationally as the assessment of the subjects against a number of items which described the overt behaviours which could be seen as being typical of individuals having the above skills. These items were assessed as part of the dimensions of Initiative/Flexibility and Problem analysis on the performance appraisal questionnaires (Appendix 6). Part of the analysis of the performance appraisal information done annually,

reviews the relative weighting of the detailed items which make up the overall dimension. The items which are weighted most heavily within the overall area of cognitive skills are:

- Rises to the challenge posed by difficult aspects of the job;
- Improves the efficiency of his/her department through own initiative;
- Modifies management approach and style when necessary to reach a goal;
- Bases decisions on complete and valid information;
- Anticipates potential problems and is prepared with alternatives when they arise;

and

- Analyses information effectively to arrive at well-integrated conclusions.

Note that these are not the only items which make up Cognitive skills, but are those which carry the most weight and therefore add the most to the definition. Reference to the review of the literature indicates that aspects such as the integration of information has been noted as highly relevant (Isenberg, 1984). The anticipation of problems and flexibility in dealing with various situations, has also been

emphasised (Garfield, 1986; Kelly, 1986). In addition, the need to use initiative and innovate is stressed repeatedly by various authors (Bennis, 1989; Tichy and Devanna, 1986; Kelly, 1986).

In testing the hypothesis, it was found that there was a significant difference between the two populations in terms of cognitive skills with the population with potential scoring higher than their colleagues.

This could therefore be seen as confirmation of the expectation that this competency is essential for leaders and managers.

The validity of the ratings given, can be questioned in terms of the overall reservations which have been expressed about performance appraisal. In particular, the effects of various types of rater bias could be considered to confound the results.

Examination of the distribution of the raw ratings given for the dimensions used, indicates that the range used extended from four to nine in the case of Initiative/Flexibility and from three to ten in the case of Problem Analysis. The raw mean score for Initiative/Flexibility was 7.05 with a standard deviation of 1.19 while that for Problem Analysis was 6.85 with a standard deviation of 1.21. Both dimensions

were standardised to a mean of 68 and a standard deviation of 13 - this rendered the distributions more comparable and increased the differentiation amongst the individuals assessed.

A further concern in the use of the scores is the fact that there might be a confounding of the two purposes of appraisal. The fact that an individual is performing well in his current job may contaminate the judgement of how he will perform in future positions.

Examination of the performance appraisal analysis indicates that in terms of current performance, the dimensions of interest are ranked sixth out of six for Initiative/Flexibility and fifth out of six for Problem Analysis. Despite this, these dimensions in combined form differentiate very significantly between the population with potential and that without potential. It would therefore appear to be reasonable to accept that there is no confounding in terms of the current application of the information.

It can therefore be assumed with reasonable certainty that cognitive skills play a significant role in differentiating individuals with the potential for further advancement from those without.

ii) Interpersonal skills

Interpersonal skills were defined as consisting of interpersonal awareness, communication, team effectiveness, the development of people, allowing participation and empowering people, giving direction to others, negotiating skills and having a presence. As in the case of the cognitive skills cluster, this competency was defined operationally in terms of the performance rating of the individual against items on the performance appraisal. The items of interest in this case were those which made up the broad dimensions of Communication/Interaction and Leading (Appendix 7).

In this instance an examination of the relative weighting of the items indicates that the most important items are the following:

- His/her manner and bearing inspire confidence;
- Commands the respect of staff;
- Communicates effectively at all levels;
- Presents concepts orally in a confident, informative manner;
- Participates constructively in group/team discussions;

- Meets requirements through teamwork;
- Readily provides clear direction for others;

and

- Provides effective performance feedback to his/her staff.

The review of the related literature reported earlier emphasised aspects such as teamwork (Kotter, 1990; Zaleznik, 1977; Bennis, 1989; Peters, 1987), the need to provide an example for others and to direct and coach others (Senge, 1990; Rosener, 1990; Ninomiya, 1988; Peters, 1987) and the need to establish communications networks throughout the organisation (Kanter, 1989; Kotter, 1988; Bennis and Nanus, 1985; Mintzberg, 1975). All of these aspects are covered in the items included within the cluster of interpersonal skills.

The hypothesis testing procedure indicated that there is a significant difference between the two populations in the means of the distributions of the scores for interpersonal skills. As in the case of cognitive skills, the population with potential scored more highly than the population without potential.

This would again seem to indicate that good performance on the interpersonal skills cluster distinguishes between individuals with the potential for further advancement and those without. This is the result which was expected in terms of the review of the literature.

An analysis of the raw performance appraisal scores again indicates that a reasonable range of scores was used. The range for both Communication/Interaction and Leading was from three to ten. The means for the two dimensions are 6.81 and 6.57 respectively with standard deviations of 1.29 in both cases. Both the dimensions were again standardised to a mean of 68 and a standard deviation of 13 to increase differentiation slightly and offset the effect of leniency. An examination of the ranking of the dimensions shows that Communication/Interaction was ranked third out of six and Leading was ranked fourth. This would once again tend to indicate that there is not a confusion of the dimensions which should be used for assessing potential with those which are relevant for assessing performance in the current position.

As in the case of Cognitive skills, it can therefore be assumed that Interpersonal skills are relevant in distinguishing between the two populations.

iii) The relationship between Cognitive and Interpersonal skills

The two clusters of skills are very highly and significantly correlated with one another (0,9099). This raises the question of the relationship between the two clusters. It would seem that they are, by definition, not necessarily related to one another and yet the high correlation would indicate otherwise.

The most probable explanation is that the performance appraisal tends to show some measure of halo effect. If an individual has been assessed as being highly competent in the Cognitive skills cluster, it is likely in most cases that he would also be assessed highly on Interpersonal skills. In the case of a relatively poorer performer, this effect is not likely to be as strong. This is borne out by the distribution statistics for the two populations. In the case of the population with potential, the standard deviation of the cognitive skills is 6,78 and the interpersonal skills, 7,67. In the case of the populations without potential, the comparable figures are 9,2 and 8,71 respectively, indicating much greater variability in the scores. The possible consequences of this halo effect should be considered in any situation in which the information is used to make binding decisions.

2.2.4 PROPOSITION 4: A PREDICTIVE MODEL FOR THE IDENTIFICATION OF POTENTIAL

The final proposition which was stated, maintained that it would be possible to construct an effective predictive model, using those competencies which had been identified as differentiating significantly between the population with potential and that without potential, to predict which individuals would fall into either of the two groups.

The initial examination of the biographical variables indicated that age, language and time in current position should also be included in the model as these variables differentiated significantly between the two populations. The model was consequently constructed using the above three biographical variables as well as the sub-factor, Control of Social relationships from the I-E scale, the sub-factors Awareness of time and Aspiration level from the AMQ and the scores for Cognitive skills and Interpersonal skills. The scores for Personal Excellence were not included as this factor consists of Aspiration level and Personal Causation with the former weighted heavily as discussed earlier.

Discriminant analysis was used to determine whether a predictive model would distinguish between the two groups effectively. The results of the discriminant analysis were not very satisfying statistically. The value obtained for

Wilks' Lamda was 0,7034. This implies that roughly 30% of the actual classification of the two groups is predicted by the independent variables included in the analysis.

As indicated in Chapter Four, a test for the difference between the proportion of people who were assessed as having potential by the panel and those predicted to have potential by the model, indicated that there was a significant difference between the two proportions. This can be seen as further evidence of the fact that the model did not predict accurately against the criterion of panel assessment of potential.

On the other hand, as was pointed out in the presentation of the results, 91,3% of the subjects with potential were classified correctly by the model and 79,4% of the subjects without potential were also classified correctly. In total, 96 cases (80%) of the subjects were classified correctly.

A detailed analysis was conducted of the cases which were mis-classified. These cases are listed in Table 13, along with the probabilities for classification in either group.

- i) Cases which were mis-classified as not having potential when the initial assessment indicated that they do.

Two cases only fell in this category, viz cases 109 and 116. An examination of the probabilities for their classification indicates that case 116 is very much a borderline case. Case 109 was revisited with the assessment panel and there was some agreement about the possible questioning of the inclusion of this subject in the high potential category. The subject scored particularly low on the AMQ - this could well be an issue in terms of motivation.

- ii) Cases which were mis-classified as having potential when the initial assessment indicated that they did not.

A total of twenty-two cases fell in this category as can be seen from Table 13. Eight of the twenty-two subjects could again be regarded as possible borderline classifications, ie cases 26, 28, 37, 48, 59, 60, 80 and 120. The remaining fourteen were again examined in detail.

Case 5 has a health problem which precludes him effectively from being promoted further. It could therefore be that the assessment of further potential took account of this and excluded the candidate.

TABLE 13: MIS-CLASSIFIED CASES

Case no	Actual	Predicted	Prob(1)	Prob(2)
6	2	1	0.872	0.128
6	2	1	0.853	0.147
26	2	1	0.569	0.431
28	2	1	0.549	0.451
34	2	1	0.818	0.182
37	2	1	0.559	0.441
42	2	1	0.695	0.305
48	2	1	0.524	0.476
50	2	1	0.895	0.105
58	2	1	0.589	0.411
60	2	1	0.51	0.49
61	2	1	0.683	0.317
80	2	1	0.524	0.476
81	2	1	0.784	0.216
83	2	1	0.777	0.223
85	2	1	0.752	0.248
88	2	1	0.667	0.333
94	2	1	0.663	0.337
98	2	1	0.785	0.215
109	1	2	0.3	0.7
111	2	1	0.726	0.274
114	2	1	0.766	0.234
116	1	2	0.412	0.588
120	2	1	0.588	0.412

Key: 1: With potential
2: Without potential

A further six subjects (cases 6, 81, 83, 88, 94 and 111) were promoted into their current positions relatively recently and members of the panel felt that they would have to prove themselves in these positions before a further assessment of longer term potential would be possible.

On further reconsideration by the panel, it was felt that four more cases, namely cases 34, 42, 85 and 98, could be reconsidered in terms of their original classification.

The remaining three cases appeared to be real anomalies which could not be resolved in terms of a reassessment of their situation by the panel. The only biographical issue of note is that five of them hail from Regions which are fairly remote from the Head Office situation and are managers of relatively small branches. This could imply that they are not known very well to the members of the panel.

Although the validity of the discriminant analysis and any attempt at building a predictive model on the above basis can be questioned on statistical terms, most of the anomalies appear to be logical and can be explained in terms of other issues which may have affected the judgement of the panel members. Perhaps the more relevant question is therefore whether the classification could be used as a springboard for questioning the panel's judgement. This is particularly pertinent in terms of the possible future application of the results of the study.

The results generated by the model tend to predict inaccurately more consistently in one direction than in the other - the number of people with potential is predicted to be larger than it actually is. Consideration of this from a practical point of view raises the question of whether this may not be desirable. In other words, it may be useful if there is a larger number of people identified for closer scrutiny rather than restricting the number of people who will benefit from such further examination. An error in the opposite direction would mean that a number of people who could possibly have the necessary potential would be overlooked as they had not been identified by the model.

3. CONCLUSIONS

The results obtained from the study and the discussion of the results indicate that there are a number of conclusions which can be drawn. These are presented in terms of the relevant context and the results obtained.

3.1 COMPETENCIES REQUIRED FOR MANAGERS IN THE NEW ORGANISATION

The competency clusters of Cognitive and Interpersonal skills considered to be of key importance by a number of authors (Boyatzis, 1982; Isenberg, 1984; Garfield, 1986; Kelly, 1986; Kanter, 1989; Peters, 1987; Bennis, 1989) have been found to differentiate significantly

between individuals who are assessed as having the potential for further advancement within the organisation and those without. This fits well with the theoretical base discussed in Chapter Two and provides a set of potential selection criteria for people who are to be considered for promotion.

The overall competency at the motive level of Achievement Motivation, did not differentiate between the two groups of interest. However, the sub-factors of Awareness of time and Aspiration level did. These factors again are close to the original definition of Achievement motivation and fit well with the expectations derived from the literature (Margerison and Kakabadse, 1984; Kanter, 1989; Kotter, 1982; Garfield, 1986). Once again, therefore, it may be possible to apply this finding in practice - an issue which is discussed further later.

In the case of Locus of Control, a somewhat unusual finding in the context of the literature, was that the only sub-factor which differentiated significantly between the two populations was Control of Social Relationships. This sub-factor as well as all the others and the overall I-E score indicated a trend in which people with potential appeared to be more externally controlled than those without. This finding contradicts the literature on leadership (Garfield, 1986; Bennis, 1989; Kotter, 1990). It is, however, not inexplicable in the culture of the organisation which is somewhat authoritarian and structured.

3.2 THE PREDICTIVE MODEL FOR THE IDENTIFICATION OF INDIVIDUALS WITH POTENTIAL

The model generated to predict potential, met with a limited amount of success. This may not have been because of the model itself and the variables used, but may well be due to deficiencies in the criterion variable - the panel assessment of the subjects. The possibility that classification by the model could lead to questioning of the panel's judgement was considered. This also has practical implications which are discussed further below.

4. IMPLICATIONS OF THE STUDY FOR PRACTICE

There are two major categories of practical implications for the organisation in the study. The first of these deals with the issue of the selection of people for promotion and the second looks at the possible strategic implications of the findings for the organisation.

4.1 THE SELECTION OF PEOPLE FOR PROMOTION

The results of the study have the greatest practical application in the early identification of individuals with the potential for further advancement in the organisation. The study casts

some doubt on the validity of the panel method of assessment and appears to provide a mechanism for at least questioning this assessment on a relatively more rational and objective basis.

It would be feasible in the first instance to use the scores which individuals obtain on Cognitive and Interpersonal skills in the Performance Appraisals as a preliminary screening device. This would mean that the overall population to be considered would be reduced considerably. As the scores for the performance appraisals are carried on the Human Resource Information System, it would be relatively simple to extract a short-list of all those individuals who meet an initial hurdle qualification in terms of performance level in these two key skill areas. The actual level at which selection takes place, would depend on the number of people who need to be considered - the level could be set higher if fewer people are required for initial short-listing.

The individuals selected on this basis could then be tested on the AMQ and possibly on the I-E questionnaire as well. The relevant scores and biographical variables could be substituted into the model for each of the candidates to generate a second selected short-list. As the model tends to overpredict the number of people with potential, this would lead to a generous rather than a conservative list.

The final list of individuals would then be put through the Management Development Centre for further in-depth assessment and for the identification of specific areas where further development may be required. This process would reduce the number of potential candidates for the Management Development Centre considerably and could ensure that the centre is used most cost effectively. It would also ensure that additional perspectives on individuals are available to broaden the base of information used for decision-making about placement and promotion.

4.2 STRATEGIC IMPLICATIONS FOR THE ORGANISATION

The results with regard to Locus of Control raise some concerns in terms of the strategic requirements of the organisation. It would appear that it may be necessary to undergo a culture change in terms of the way in which authority relationships and the expectations generated in staff about their ability to control their own destinies, are handled. It would appear that those individuals who are destined to be the leaders of the organisation perceive themselves to be relatively powerless to control "the system" within the organisation. On the other hand, the emphasis on Interpersonal skills in which one of the components relates to the empowerment of people, raises an interesting paradox:

Is it possible to empower people in an organisation in which they may possibly see the use of control in their own right and independent thinking to be counter-productive?

If this paradox cannot be resolved and the whole issue of independent thinking and being one's own person is not conducive to promotion in the organisation, it may be necessary to look at a possible intervention in terms of the overall empowerment of people.

The possible role of the panel of assessors in terms of their choice of individuals by which to "clone" themselves, should also be taken into consideration. It is feasible that the panel would choose individuals with whom they would feel comfortable, either because they resemble themselves or because they would not necessarily disrupt the current order of things. This would not necessarily be conducive to allowing progress in the overall strategic direction which will be required for success in the nineties and beyond.

5. RECOMMENDATIONS FOR FURTHER RESEARCH

A number of different areas present themselves for further research. Each of these is discussed briefly and the possible results which could be obtained are explored.

5.1 RESEARCH IN OTHER ORGANISATIONS

It would be of great interest to determine the extent to which the organisational culture has dictated the results which have been obtained. This could be done if a similar study was conducted in other organisations in the financial sector in South Africa. It is recommended that the studies be broadened by the inclusion of some measure of organisational culture. It would then be of interest to determine firstly whether there are significant differences between the organisational cultures and then whether the pattern of competencies required for leaders differ. In particular, it may be of interest to conduct such studies in other financial institutions which also use the MENTOR-3 performance appraisal system as this would ensure a greater degree of comparability in the data.

The results of such a study would be useful in indicating the generalisability of the results obtained and would also give an indication of a more general potential field of application for the methodology.

5.2 THE INCLUSION OF ADDITIONAL COMPETENCIES

This study was restricted to an extent by the fact that only a limited number of competencies were selected from the overall range of competencies which were found to be relevant. The relative weakness of the predictive model

generated may, in part, have been due to the fact that such a restricted range of competencies were covered. It could therefore be of interest to do a similar investigation for the full range of competencies. A more widely based predictive model could then be generated on the basis of the results obtained. The feasibility of such a study might be curtailed by the measures which are available on the one hand and by the practicality of the subsequent application of the measures on the other. There may, however, be some of the competencies which have not been considered which would be better predictors of potential than those which were included in the current study.

5.3 THE TARGET POPULATION

The study was conducted within the ranks of branch and area management in the organisation only. It could be of interest to look at other hierarchical levels in the Bank to determine whether the same findings would apply. So, for example, it may be of interest to examine the population of managers just below that considered in the study as well as the supervisory level below this. It may again be that very different competencies are required for advancement into branch and area manager level than for further advancement at a later stage.

5.4 ORGANISATIONAL CULTURE

An adjunct to the first possibility mentioned, would simply be to conduct a culture study in the organisation without looking at other organisations. It would be of interest to determine whether there are aspects of the organisational culture as determined from such a study which could be relevant to the findings reported.

5.5 ADDITIONAL WORK ON LOCUS OF CONTROL

It could also be of interest to explore the findings of Boyatzis (1982) in terms of a curvilinear relationship between Locus of control and performance in managers further. The reasons postulated by him for this relationship could potentially be explored further to determine what the actual causal relationships are.

5.6 VALIDATION OF THE MODEL

An additional consideration could be that of conducting a longitudinal study in which the careers of the subjects used for this study are traced over an extended period of time. As the subjects are all part of one organisation and are at a level at which turnover is minimal, this

should be feasible. This would serve to validate the findings of the study, but could also potentially serve the broader purpose of looking at other variables which may intervene and determine career paths.

5.7 THE DEVELOPMENT OF MANAGERS

A final field which could be examined relates to the requirements for the development of managers. It is conceivable that some or all of the competencies which have been considered can be fostered or developed in individuals to enable them to succeed. The means by which this is to be achieved and the process to be followed could be researched further - an aspect which would again have significant practical implications.

These suggestions for further research are all particularly relevant in terms of the practical application of the results of the current study. The directions suggested would clarify some of the issues which have been left unanswered in the current situation and might, of themselves, suggest yet additional directions.

In conclusion, the study has obtained useful results which could assist greatly in the process of succession planning and the development of managers in the organisation. There is some concern with respect to the potential "cloning" of existing managerial skills and styles which may not always be appropriate to meet the challenges of the nineties and beyond. However, the possibility also exists for highlighting this possible concern and for addressing it while the time and the possibilities are still there.

Warren Bennis (1989, p. 6) quotes the legendary Karl Wallenda as saying:

*"Walking the tightwire is living;
everything else is waiting"*

Can the organisation of the future afford to wait or will it be forced to walk the wire with the need for the full range of competencies which that implies?

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APPENDIX 1

COVERING LETTERS



UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

The Graduate School of Business Administration
2 St David's Place, Parktown, Johannesburg, 2193 South Africa

☒ P O Box 98, WITS
2050 South Africa
☒ 'Embark'
☒ 4-27125 SA
☒ (011) 643-6641
Fax (011) 643-2336

15 March 1991

Dear Sir/Madam

MM RESEARCH REPORT QUESTIONNAIRES

In order to complete an MM degree, the University requires the submission of a research report. This research report is a bona fide academic project used for research purposes only.

Margaret Jenks is a registered student at the Wits Business School. She is currently conducting research into the identification of management potential. The objective of this research is to determine whether certain measurable aspects of performance and behaviour can be used to predict whether people will succeed in managerial positions. This research is being conducted within only.

As a manager in , your participation in this research would be greatly appreciated.

If you have any queries about the questionnaires which you will be asked to complete, please contact Margaret Jenks directly at Telephone no (ext 4115) (work) or 678-0797 (home).

Yours sincerely

F.M. Orkin

PROFESSOR F M ORKIN
PROFESSOR: SOCIAL RESEARCH METHODOLOGY

6 Doring Place
Aldara Park
RANDBURG
2194

9 April 1991

[MERGE] [MERGE] [MERGE]
[MERGE]
[MERGE]

Dear [MERGE]

RESEARCH PROJECT : WITS BUSINESS SCHOOL

As indicated in the covering letter, I am currently completing a Masters degree through the Wits Business School. I have a topic which I believe will be of value to the Bank and have approval for the project from both the University and the Bank.

I would appreciate it if you would spend some time completing the three enclosed questionnaires. They are :

- A biographical questionnaire
- A "PM" questionnaire where you will be required to choose one of two alternatives in each question.
- An "I-E" questionnaire which also requires the choice of one of two alternatives.

Cont'd...2/

Page 2.

Detailed instructions for the completion of each of the questionnaires are given with the questionnaires. Please read these carefully before completing the questionnaires. Please ensure that your salary number appears in the appropriate place on each of the questionnaires as this will be used to tie the information from the three forms together.

All information supplied by you will be treated in the strictest confidence. All individual results will be pooled and only aggregate information will be used in the final report. An overview of these results will be made available to interested participants.

Please return all the completed forms to me at Branch 785,
as soon as possible. Please do not hesitate to contact me if you
should have any concerns on telephone number (ext 4115).

Thanking you in anticipation.

Yours sincerely

MARGARET JENKS

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APPENDIX 2
QUESTIONNAIRES

1. SURNAME:

2. INITIALS:

3. SALARY NUMBER:

4. BIRTH DATE:

5. SEX (1 = Male; 2 = Female)

6. HOME LANGUAGE:

7. DATE ENGAGED BY NEDBANK:

8. YEAR OF FIRST MANAGERIAL APPOINTMENT IN NEDBANK:

9. CURRENT POSITION:

10. TIME IN THIS POSITION:

11. NUMBER OF DIRECT SUBORDINATES:

(Please turn over)

12. DEVELOPMENT:

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12.1 HIGHEST SCHOOL STANDARD (Tick correct block):

ST	8	9	10
1	2	3	

12.2 HIGHEST UNIVERSITY EDUCATION (Tick correct block):

B DEG	HONS	BK DEG	D-DEG	DIP
1	2	3	4	5

12.3 HIGHEST BANK EXAMINATION (Tick correct block):

DIP	LIC	ASS	DIP1	DIP2
1	2	3	4	5

12.4 OTHER TERTIARY EDUCATION (Give details):

12.5 HAVE YOU ATTENDED ANY NEDBANK AND/OR EXTERNAL MANAGEMENT DEVELOPMENT COURSES (Tick relevant block/s):

NEDBANK	EXTERNAL
1	2

12.6 HAVE YOU ATTENDED THE NEDCOR EDP AND/OR ANY OTHER LOCAL EDP AND/OR OVERSEAS COURSES SUCH AS INSEAD OR MANCHESTER (Tick relevant block/s):

NEDCOR EDP	OTHER LOCAL EDP	OVERSEAS COURSE
1	2	3

I-E QUESTIONNAIRE

INSTRUCTIONS

This is a questionnaire to find out how certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement (and only one) which you believe to be the case. Be sure to select the one you actually believe to be the more true or rather the one you think you should choose or the one you would like to be true. This is a measure of personal belief; obviously there are no right or wrong answers.

Please answer the items carefully but do not spend too much time on any one item. Be sure to find an answer for every question. In some cases you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you are concerned. Also try to respond to each item independently when making your choice, do not be influenced by your previous choices.

Please indicate your answers by ringing either the A or the B label of the alternative which you choose for each question on the questionnaire.
Return the questionnaire along with the others to Margaret Jenks, Branch 785.

Please enter your salary number here:

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I-E QUESTIONNAIRE

ITEM

PAGE 1

1. A Children get into trouble because their parents punish them too much.
B The trouble with most children nowadays is that their parents are too easy on them.
2. A Many of the unhappy things in people's lives are partly due to bad luck.
B People's misfortunes result from the mistakes they make.
3. A One of the major reasons why we have wars is because people don't take enough interest in politics.
B There will always be wars, no matter how hard people try and prevent them.
4. A In the long run people get the respect they deserve in this world.
B Unfortunately, an individual's worth often passed unrecognised no matter how hard he tries.
5. A The idea that teachers are unfair to students is nonsense.
B Most students don't realise the extent to which their marks are influenced by accidental happenings.
6. A Without the right breaks one cannot be an effective leader.
B Capable people who fail to become leaders have not taken advantage of their own opportunities.
7. A No matter how hard you try some people just don't like you.
B People who can't get others to like them don't understand how to get along with others.
8. A Heredity plays the major part in determining one's personality.
B It is one's experiences in life which determine what one is like.
9. A I have often found that what is going to happen is going to happen.
B Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10. A In the case of a well-prepared student there is rarely if ever such a thing as an unfair test.
B Many times exam questions tend to be so unrelated to course work that studying is really useless.
11. A Becoming a success is a matter of hard work, luck has little or nothing to do with it.
B Getting a good job depends mainly on being in the right place at the right time.
12. A The average citizen can have an influence on government decisions.
B This world is run by the few people in power and there is not much the little guy can do about it.
13. A When I make plans, I am almost certain that I can make them work.
B It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyway.
14. A There are certain people who are just no good.
B There is some good in everybody.
15. A In my case getting what I want has little or nothing to do with luck.
B Many times we may as well decide what to do by flipping a coin.

ITEM

PAGE 2

16. A Who gets to be the boss often depends on who was lucky enough to be in the right place first.
B Getting people to do the right thing depends on ability, luck has little or nothing to do with it.
17. A As far as world affairs are concerned, most of us are the victims of forces which we can neither understand nor control.
B By taking an active part in political and social affairs, people can control world events.
18. A Most people don't understand the extent to which their lives are controlled by accidental happenings.
B There really is no such thing as "luck".
19. A One should always be willing to admit mistakes.
B It is usually best to cover up one's mistakes.
20. A It is hard to know whether or not a person really likes you.
B How many friends you have depends on how nice a person you are.
21. A In the long run the bad things that happen to us are balanced by the good ones.
B Most misfortunes are the result of lack of ability, ignorance, laziness or all three.
22. A With enough effort, we can wipe out political corruption.
B It is difficult for people to have much control over the things which politicians do in office.
23. A Sometimes I can't understand how teachers arrive at the marks they give.
B There is a direct connection between how hard I study and the marks I get.
24. A A good leader expects people to decide for themselves what they should do.
B A good leader makes it clear to everybody what their jobs are.
25. A Many times I feel that I have little influence over the things that happen to me.
B It is impossible for me to believe that chance or luck play an important part in my life.
26. A People are lonely because they don't try to be friendly.
B There is not much use in trying too hard to please people, if they like you, they like you.
27. A There is too much emphasis on athletics in high school.
B Team sports are an excellent way of building character.
28. A What happens to me is my own doing.
B Sometimes I feel that I don't have enough control over the direction my life is taking.
29. A Most of the time I can't understand why politicians behave the way they do.
B In the long run the people are responsible for bad government on a national as well as on a local level.

P-M QUESTIONNAIRE

INSTRUCTIONS

This questionnaire consists of a number of items where contrasting descriptions concerning two people, viz, Person A and Person B, are given. Read the two descriptions in every item and then decide which one of the two **BEST** describes you. Mark your choice by ringing either the A or the B in the item on the questionnaire. You may sometimes find that neither of the two descriptions quite fit you, but you should, nevertheless, decide which of the two is more like you. Mark only one alternative for each item.

Note that your answer for one item should never influence your answer to another item as Person A or B of one item is not necessarily the same as Person A or B in any other item. Consider each item independently from all the other items.

Return the questionnaire along with the others to Margaret Jenks, Branch 785.

Please enter your salary number here:

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ITEM

PAGE 1

1. A always plans his/her programme a long time ahead.
B seldom plans his/her programme a long time ahead.
2. A persists with every task which he/she tackles.
B finds it difficult to persist.
3. A is inclined to make careless errors in his/her work.
B is usually very accurate in his/her work.
4. A feels that every minute of the day must be used actively.
B feels that he/she can relax a bit during his/her daily duties.
5. A prefers tasks where he/she must take a risk.
B avoids tasks where he/she must take a risk.
6. A sets easy goals that he/she knows he/she will be able to reach.
B aims high in spite of the possibility of failure.
7. A begins preparing himself/herself for a task a long time beforehand.
B prefers to prepare for a task a short while beforehand.
8. A loses heart when problems are experienced.
B perseveres with a task even though many problems are experienced.
9. A believes that his/her actions are correct in most situations.
B doubts the correctness of his/her actions in most situations.
10. A prefers a task that is demanding and challenging even though there is a reasonable chance of failure.
B prefers simple tasks where the chance of failure is slight.

ITEM

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11. A feels that idleness is sometimes justified.
B cannot tolerate idleness.
12. A does not worry too much if certain of his/her goals are not attained.
B worries if he/she cannot reach all his/her goals.
13. A's whole orientation is concerned with the present.
B's whole orientation is concerned with the future.
14. A is prepared to spend his/her free time learning a skill.
B feels he/she would rather use his/her free time for relaxation.
15. A is confident that he/she is able to successfully complete all tasks which he/she tackles.
B is unsure whether he/she can successfully complete all tasks which he/she tackles.
16. A always has lots to do.
B sometimes looks for something to do.
17. A sometimes gives up too easily.
B does not give up easily.
18. A prefers to avoid all risks.
B prefers to take calculated risks.
19. A avoids an occupation where high standards are demanded.
B prefers an occupation where high standards are demanded.
20. A does not rest until an assignment is completed.
B is not upset when an assignment is not completed.

ITEM

PAGE 3

21. A feels that time sometimes stands still.
B feels that time flies quickly.
22. A prefers work of a routine nature.
B prefers demanding work.
23. A will accept a challenge even though he/she is not sure of success.
B will only accept a challenge when he/she is fairly certain of success.
24. A prefers working to a timetable.
B finds it difficult working to a timetable.
25. A welcomes periodical rest breaks during the execution of a difficult task.
B prefers to first complete a difficult task and then take a break.
26. A relies on own abilities to overcome difficulties.
B relies on the help of others in order to overcome difficulties.
27. A first tackles difficult tasks.
B leaves the difficult tasks for later.
28. A lets the career situation develop for himself/herself.
B has a clear plan of his/her future career which he/she follows carefully.
29. A views success as resulting from personal skills.
B views success as partly pure luck.
30. A finds it difficult to resume work after an interruption.
B easily resumes a task after an interruption.

ITEM

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31. A would prefer a job that offers a challenge, even though less security is attached to it.
B would rather prefer work that offers security, even though there is less challenge.
32. A is not worried if he/she deviates from his/her timetable.
B feels discontented if he/she deviates from his/her timetable.
33. A tends to give up easily.
B endures until the end.
34. A can for an unlimited time focus his/her attention on carrying out a task.
B's attention is easily distracted while performing a task.
35. A is vague as to his/her future plans.
B has very clear future plans.
36. A does not easily accept help in the solving of a complex task.
B readily accepts help in the solving of a complex task.
37. A feels that time passes too quickly.
B has enough time "to live it up".
38. A feels that his/her actions can at times be planned better.
B always acts in a planned way.
39. A views personal skills as important for success.
B accepts that luck can play a role in success.
40. A avoids tasks to which great risks are attached.
B prefers tasks to which great risks are attached.

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41. A always has a full programme.
B's programme is not always full.
42. A feels that external factors makes his/her control of situations difficult.
B usually feels in control of a situation.
43. A does not enjoy to organize his/her life strictly.
B enjoys to organize his/her life strictly.
44. A often tackles more difficult tasks where he/she is not sure of whether he/she will be able to complete them.
B rather tackles easier tasks which he/she is sure he/she can complete.
45. A is not always sure of his/her plans for the following year.
B mostly has clarity as to what he/she is going to do the following year.
46. A is usually discouraged by his/her misfortunes.
B is never discouraged by his/her misfortunes.
47. A prefers a challenging profession to an interesting profession.
B prefers an interesting profession to a challenging profession.
48. A seldom works to a timetable.
B mostly works to a timetable.
49. A prefers challenging situations in spite of a real chance of failure.
B prefers situations where he/she is sure of success.
50. A finds it easier to leave work incomplete because he/she can finish it later.
B does not leave work incomplete if there is enough time to complete it.

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PAGE 6

51. A seldom plans a programme according to which he/she is to carry out all his/her activities.
B usually plans a programme according to which he/she is to carry out all his/her activities.
52. A tends to forsake plans if circumstances become unfavourable.
B completes his/her plans to the "bitter end" even though circumstances are unfavourable.
53. A easily wastes time.
B uses every minute.
54. A starts immediately when an assignment is given to him/her.
B waits a while before he/she starts on an assignment.
55. A prefers tasks with an average level of difficulty.
B prefers very difficult or very easy tasks.
56. A mostly decides for himself/herself what to do in certain situations.
B usually allows himself/herself to be lead by the opinions of others in his decisionmaking.
57. A is sometimes idle.
B is always busy.
58. A accepts resignedly if his/her watch loses time.
B is irritated if his/her watch loses time.
59. A relaxes only after a task has been completed.
B relaxes even before a task has been completed.
60. A will be satisfied if he/she fares well, even though he/she does not come out right on top.
B wants to reach the highest level in life at all costs.

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61. A completes the easier jobs first as he/she can complete them with confidence.
B completes the difficult jobs first so as to get it over with.
62. A sets standards for himself/herself that are not too high or too low.
B usually sets high standards for himself/herself.
63. A finds it difficult to do something more than what he/she resolved to do.
B usually gets more done than what he/she resolved to do.
64. A blames himself/herself if he/she oversleeps.
B is not much concerned if he/she oversleeps.
65. A prefers an occupation that demands a very high standard.
B prefers an occupation that demands an average standard.
66. A usually carries on with relatively difficult jobs until he/she masters them.
B usually gives up before he/she has mastered a relatively difficult job.
67. A is prepared to take a chance to complete his/her plans even though circumstances are less favourable.
B is not prepared to take a chance and carry out his/her plans if circumstances are unfavourable.
68. A always ensures that his/her watch is set to the correct time.
B is less concerned as to whether his/her watch is set to the correct time.
69. A prefers situations in which he/she is mainly required to follow directions developed by others.
B prefers situations in which he/she can personally take initiative to make things happen.
70. A It worries A if he/she was late for an appointment.
B does not worry if he/she is occasionally late for an appointment.

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71. A prefers an important and difficult task even though there is only a 50% chance of success.
B avoids an important and difficult task where there is only a 50% chance of success.
72. A finds it easy to start a new task even though the previous task is incomplete.
B does not start easily with a new task while the previous task is incomplete.
73. A prefers goals which he/she can attain without much effort.
B prefers goals for which he/she has to exert a great amount of effort.
74. A feels guilty when he/she somewhere uses his/her time ineffectively.
B does not mind if he/she sometimes wastes time.
75. A prefers a work situation that requires a very high standard of excellence.
B prefers a work situation demanding an average standard of excellence.
76. A sometimes does not know what to do with his/her time.
For B time usually passes too quickly.
77. A has a need to succeed.
B has a need to avoid failure.
78. A first completes an urgent job at home before he/she can relax.
B prefers to relax at home and then do the urgent job the next morning.
79. A becomes disheartened by setbacks.
B regards setbacks as new challenges.
80. A believes that if completion of a job is postponed it will never get done.
B feels that "tomorrow is another day" with regard to the execution of a task.

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PAGE 3

81. A prefers working for an established firm.
B prefers to manage his/her own business undertaking.
82. A's conscience always worries him/her if he/she has not executed a job to the best of his/her ability.
B's conscience seldom worries him/her if he/she has not executed a job to the best of his/her ability.
83. A can accept easily that no solution to a problem exists.
B keeps on searching until he finds a solution to a problem.
84. For A structure and order in his/her life is very important.
For B structure and order in his/her life is unimportant.

APPENDIX 3

GROUPING OF THE I-E SCALE ITEMS

THE GROUPING OF ITEMS IN THE I-E QUESTIONNAIRE

The questionnaire has a number of sub-factors which have been used in the study. The grouping of the questionnaire items within the sub-factors is indicated below.

Sub-factor 1: Political control

Definition

A measure of the extent to which an individual believes that he has control over political and world events.

Items 12, 17, 21 and 22 make up this sub-factor.

Sub-factor 2: Control over Social Relationships

Definition:

A measure of the extent to which an individual believes that he has control over the nature of his relationship with others in his environment.

Items 2, 7, 15, 20 and 26 make up this factor.

Sub-factor 3: Personal control

Definition

A measure of the extent to which an individual believes that the attainment of personal goals is due to his own efforts and abilities.

Items 4, 5, 9, 10, 11, 18 and 23 are included in the sub-factor.

Sub-factor 4: Belief in luck

Definition:

The extent to which the individual believes that events in his life are controlled by luck or occur randomly.

The sub-factor consists of items 13, 16, 25 and 28.

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APPENDIX 4

GROUPING OF THE AMQ ITEMS

THE GROUPING OF ITEMS IN THE ACHIEVEMENT
MOTIVATION QUESTIONNAIRE

The questionnaire has a number of sub-factors which are defined below with the relevant items which make up each factor.

FACTOR AA: GOAL-DIRECTEDNESS

Sub-factor A: Persistence

Definition: (Pottas et al, 1980, p 3)

"Individuals who obtain high scores on this factor tend to persevere in seeking solutions to problems despite adverse circumstances. Setbacks are regarded as new challenges and they can be described as die-hards. When success is achieved they ascribe it mainly to the utilisation of their own skills. In conjunction with this tenacity of purpose, there is also a tendency to want to complete tasks, not to procrastinate and to refrain from delay when confronted with the need to grapple with complex tasks."

The sub-factor consists of items 2, 8, 14, 17, 25, 27, 29, 33, 39, 50, 52, 54, 59, 61, 65, 72, 78, 79, 80, 82 and 83.

Sub-factor B: Awareness of Time

Definition: (Pottas et al, 1980, p 3)

"High scorers work according to a time schedule and plan ahead. They keep their affairs in applepie order and prefer to have structure in their lives. They prepare well in advance for any eventuality. They feel guilty about inefficient use of time, when they are late for an appointment or if they deviate from their time-table. They are concerned with the future and their precisely formulated plans for the future include definite career goals."

The sub-factor consists of items 1, 7, 12, 13, 20, 24, 28, 32, 35, 38, 43, 45, 48, 51, 58, 64, 68, 70, 74 and 84.

Sub-factor C: Action orientation

Definition: (Pottas et al, 1980, p 3)

"Individuals with high scores are active, energetic people. They consistently have much to do and want to utilise time optimally. They cannot tolerate idleness and are not inclined to take extended test breaks when completing a task. Time is perceived as dynamic and fast-moving."

The factor consists of items 4, 11, 16, 21, 37, 41, 53, 57 and 76.

FACTOR BB: PERSONAL EXCELLENCE

General definition: (Pottas et al, 1980, p 3)

High scorers ... indicate that high personal standards of excellence are formulated. ..(They) are convinced that one should depend on one's skills and abilities to achieve success, rather than on luck or mere effort. They revel in challenges, take calculated risks and believe that unfavourable circumstances can be overcome by taking initiative."

Sub-factor D: Aspiration level

Definition: (Pottas et al, 1980, pp 3 - 4)

"....an inclination to embark on demanding and challenging tasks even though failure may be experienced. Therefore calculated risks are taken and challenges are preferred to certainty of success. They set high performance standards for themselves and expect the same of others. They are willing to go to great lengths to obtain their goals. They would rather manage their own enterprises than merely be part of a large organisation. They do not easily accept help in the solving of complex tasks."

Items 5, 6, 10, 18, 19, 22, 23, 31, 36, 40, 44, 47, 49, 55, 62, 65, 67, 71, 73, 75 and 81 make up the sub-factor.

Sub-factor E: Personal Causation

Definition: (Pottas et al, 1980, p 4)

"..indicate a trust in their own abilities and skills and a conviction that control can be exerted over life events and the environment. They generally do not believe that they are victims of circumstance. They tend to believe that their actions are correct in most cases and that they will be able to execute a task to the best of their ability. They prefer situations where they can take personal initiative and want at all costs to reach the highest point in life. They are therefore characterized by a motivation to achieve success rather than by a motivation to avoid failure."

Items 3, 9, 15, 26, 30, 34, 42, 46, 56, 60, 63, 69 and 77 make up the sub-factor.

APPENDIX 5

PERFORMANCE APPRAISAL QUESTIONNAIRE

1	2	3	Serial Number
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1990 - PERFORMANCE MANAGEMENT SYSTEM

PERSONAL DETAILS

Employee number	:	
Surname	:	
Department/Branch	:	
Grade	:	

INTERVIEW REPORT LANGUAGE PREFERENCE

☐

ENGLISH

☐

AFRIKAANS

☐

8 - 13

14 - 23

24

25

Please read the following instructions

The questionnaire is divided into four sections. Please complete all sections for the employee. In all cases ratings must be given by drawing dark, legible circles around the appropriate number. Do not give more than one score per question.

SECTION I : ACHIEVEMENT OF EFFECTIVENESS AREAS

SECTION II : DETAILED BEHAVIOURAL ASSESSMENT

SECTION III : APPRAISAL OF BROAD PERFORMANCE ASPECTS

SECTION IV : OVERALL APPRAISAL

How long have you worked with this person?

☐

Less than
6 months

☐

6 months to
less than
1 year

☐

1 to 1 1/2
years

☐

Longer

26

How often are you in contact with this person?

☐

Daily

☐

Weekly

☐

Monthly

☐

Less
frequently

27

28

SECTION 1: MBO ACHIEVEMENT - EFFECTIVENESS AREAS (RESULT AREAS)

Has this person been set measurable objectives?
(Consult the Appraiser Guide before completing this section)

1 Yes 2 No

29

If "Yes", please complete this section and include their Quality objective if applicable

EFFECTIVENESS AREAS		Weight (total of 100%) Please list in order of priority		Measure of attainment previous 3 quarters			Circumstances previous 3 quarters		
				Fell short	Attained	Surpassed	Favourable	Normal	Unfavourable
1.		30 - 33	34 - 36	1	2	3	1	2	3
2.		40 - 49	37 - 39	1	2	3	1	2	3
3.		50 - 59	40 - 42	1	2	3	1	2	3
4.		60 - 69	43 - 45	1	2	3	1	2	3
5.		70 - 79	46 - 48	1	2	3	1	2	3
6.		14 - 23	49 - 51	1	2	3	1	2	3
7.		24 - 33	52 - 54	1	2	3	1	2	3

55 - 56

57 - 58

59 - 60

61 - 62

63 - 64

65 - 66

67 - 68

69

SUMMARY OF EFFECTIVENESS AREAS (RESULT AREAS)

1. Summarise, in one score, the above assessment of effectiveness areas. Circle the figure which would best reflect the person's level of achievement.

Fell short			Attained				Surpassed		
1	2	3	4	5	6	7	8	9	10

70 - 71

2. Summarise, in one score, the circumstances which affected the achievement of the above effectiveness areas. Circle the figure which would best describe the circumstances.

Favourable			Normal				Unfavourable		
1	2	3	4	5	6	7	8	9	10

72 - 73

3. Give a separate summary of the person's performance with regard to both effectiveness areas and circumstances. Circle one figure.

Weak		Below average		Average/Acceptable		Above average		Excellent	
1	2	3	4	5	6	7	8	9	10

74 - 75

76

3	DUP
1	2

SECTION II : DETAILED BEHAVIOURAL ASSESSMENT

In this section the performance of the employee must be rated with reference to detailed behavioural items. Please rate all items given. The ratings for "Don't know" and "Not applicable" may be used where necessary.

A. JOB PERFORMANCE

A. JOB PERFORMANCE	PERFORMANCE RELATIVE TO LEVEL REQUIRED BY JOB										Don't know	N/A	
	Falls well below	Some-what lower		Meets requirements		Some-what higher		Much higher					
1. Strives to achieve the goals he/she sets for him/herself	1	2	3	4	5	6	7	8	9	0	14		
2. Gets it right first time every time	1	2	3	4	5	6	7	8	9	0	15		
3. Keeps up to date with the latest developments in his/her field of specialisation	1	2	3	4	5	6	7	8	9	0	16		
4. Works well under pressure	1	2	3	4	5	6	7	8	9	0	17		
5. Knows the output requirements of his/her branch/department	1	2	3	4	5	6	7	8	9	0	18		

B. INITIATIVE/FLEXIBILITY

B. INITIATIVE/FLEXIBILITY	PERFORMANCE RELATIVE TO LEVEL REQUIRED BY JOB								Don't know	N/A	
	Falls well below	Some-what lower	Meets requirements		Some-what higher		Much higher				
6. Hises to the challenge posed by difficult aspects of the job	1	2	3	4	5	6	7	8	9	0	19
7. Improves the efficiency of his/her area of responsibility through own Initiative	1	2	3	4	5	6	7	8	9	0	20
8. Modifies management approach and style when necessary to reach a goal	1	2	3	4	5	6	7	8	9	0	21
9. Acts independantly within the framework of overall policy	1	2	3	4	5	6	7	8	9	0	22
10. Suggests alternative solutions to overcome obstacles	1	2	3	4	5	6	7	8	9	0	23

C. JUDGEMENT

C. JUDGEMENT	PERFORMANCE RELATIVE TO LEVEL REQUIRED BY JOB								Don't know	N/A	
	Falls well below	Some-what lower	Meets requirements	Some-what higher	Much higher						
11. Is able to assess the potential risks in a transaction/decision	1	2	3	4	5	6	7	8	9	0	24
12. Assesses the possible rewards for the bank in a transaction realistically	1	2	3	4	5	6	7	8	9	0	25
13. Makes decisions quickly when necessary	1	2	3	4	5	6	7	8	9	0	26
14. Maintains sound decision making when under pressure	1	2	3	4	5	6	7	8	9	0	27
15. Prepared to accept responsibility for his/her decisions	1	2	3	4	5	6	7	8	9	0	28

D. PROBLEM ANALYSIS

D. PROBLEM ANALYSIS	PERFORMANCE RELATIVE TO LEVEL REQUIRED BY JOB								Don't know	N/A	
	Falls well below	Some-what lower	Meets requirements	Some-what higher	Much higher						
16. Analyses information effectively to arrive at well-integrated conclusions	1	2	3	4	5	6	7	8	9	0	29
17. Anticipates potential problems and is prepared with alternatives when they arise	1	2	3	4	5	6	7	8	9	0	30
18. Identifies the cause of a problem by asking penetrating questions	1	2	3	4	5	6	7	8	9	0	31
19. Bases decisions on complete and valid information	1	2	3	4	5	6	7	8	9	0	32
20. Keeps the overall picture in mind, and does not get bogged down in hidden detail	1	2	3	4	5	6	7	8	9	0	33

E. COMMUNICATION/INTERACTION

	PERFORMANCE RELATIVE TO LEVEL REQUIRED BY JOB								Don't know	N/A	
	Falls well below	Some-what lower	Meets requirements	Some-what higher	Much higher						
21. His/Her manner and bearing inspire confidence	1	2	3	4	5	6	7	8	9	0	34
22. Presents concepts orally in a confident, informative manner	1	2	3	4	5	6	7	8	9	0	35
23. Participates constructively in group/team discussions	1	2	3	4	5	6	7	8	9	0	36
24. Communicates effectively at all levels	1	2	3	4	5	6	7	8	9	0	37

F. MANAGEMENT SKILLS

(a) Planning and Organising

	PERFORMANCE RELATIVE TO LEVEL REQUIRED BY JOB								Don't know	N/A	
	Falls well below	Some-what lower	Meets requirements	Some-what higher	Much higher						
25. Allocates work to the appropriate level	1	2	3	4	5	6	7	8	9	0	38
26. Participates in setting objectives in appropriate effectiveness areas	1	2	3	4	5	6	7	8	9	0	39
27. Allocates available resources effectively to meet commitments	1	2	3	4	5	6	7	8	9	0	40
28. Organises the branch/department so that it runs effectively in his/her absence	1	2	3	4	5	6	7	8	9	0	41
29. Reviews plans/priorities regularly	1	2	3	4	5	6	7	8	9	0	42

(b) Leading

	PERFORMANCE RELATIVE TO LEVEL REQUIRED BY JOB								Don't know	N/A	
	Falls well below	Some-what lower	Meets requirements	Some-what higher	Much higher						
30. Readily provides clear direction for others	1	2	3	4	5	6	7	8	9	0	43
31. Commands the respect of staff	1	2	3	4	5	6	7	8	9	0	44
32. Meets requirements through teamwork	1	2	3	4	5	6	7	8	9	0	45
33. Identifies and develops staff with potential	1	2	3	4	5	6	7	8	9	0	46
34. Provides effective performance feedback to his/her staff	1	2	3	4	5	6	7	8	9	0	47
35. Keeps staff informed about matters and changes affecting them and their work	1	2	3	4	5	6	7	8	9	0	48
36. Encourages participation in decision making	1	2	3	4	5	6	7	8	9	0	49
37. Allows staff to accept the responsibility for delegated work	1	2	3	4	5	6	7	8	9	0	50
38. Acknowledges others for work well done or good performance	1	2	3	4	5	6	7	8	9	0	51
39. Encourages and supports subordinates in execution of tasks	1	2	3	4	5	6	7	8	9	0	52

(c) Control

	PERFORMANCE RELATIVE TO LEVEL REQUIRED BY JOB								Don't know	N/A	
	Falls well below	Some-what lower	Meets requirements	Some-what higher	Much higher						
40. Ensures that instructions are carried out	1	2	3	4	5	6	7	8	9	0	53
41. Ensures that the work done in own branch/department is of a consistently good quality	1	2	3	4	5	6	7	8	9	0	54
42. Ensures that documentation is kept up to date	1	2	3	4	5	6	7	8	9	0	55

G. SELLING

Is this manager expected to sell actively?



Yes



No

56

This subsection should be completed only for those people who are actively engaged in selling the bank's services

	PERFORMANCE RELATIVE TO LEVEL REQUIRED BY JOB										Don't know	N/A	
	Falls well below	Some-what lower	Meets requirements	Some-what higher	Much higher								
43. Initiates moves for introducing new clients	1	2	3	4	5	6	7	8	9	10			57
44. Makes a significant personal contribution to the growth of the bank's business	1	2	3	4	5	6	7	8	9	10			58
45. Maintains and increases existing clients' use of the bank's services	1	2	3	4	5	6	7	8	9	10			59
46. Negotiates successfully	1	2	3	4	5	6	7	8	9	10			60
47. Maintains an ongoing client relations programme	1	2	3	4	5	6	7	8	9	10			61
48. Uses product literature well	1	2	3	4	5	6	7	8	9	10			62
49. Reacts appropriately to external business developments	1	2	3	4	5	6	7	8	9	10			63
50. Refers business prospects to the appropriate division of the Group	1	2	3	4	5	6	7	8	9	10			64
51. Reacts with a sense of urgency to client's needs	1	2	3	4	5	6	7	8	9	10			65

4	DUP
1	2

SECTION III : APPRAISAL OF BROAD PERFORMANCE ASPECTS

Please assess the employee on the Broad Performance Aspects below.

Also indicate the importance of the various aspects for the specific job done by the employee in the left hand column.

Rate all aspects except the optional aspect indicated.

(Consult the Appraiser Guide before completing this section)

	IMPORTANCE TO THE JOB					BROAD PERFORMANCE ASPECTS	PERFORMANCE RELATIVE TO LEVEL REQUIRED BY JOB									
	Not applicable	Not important	Of little importance	Quite important	Vital		Falls well below	Some-what lower	Meets requirements	Some-what higher	Much higher					
14	1	2	3	4	5	Job performance	1	2	3	4	5	6	7	8	9	10
15	1	2	3	4	5	Initiative/Flexibility	1	2	3	4	5	6	7	8	9	10
16	1	2	3	4	5	Judgement	1	2	3	4	5	6	7	8	9	10
17	1	2	3	4	5	Problem analysis	1	2	3	4	5	6	7	8	9	10
18	1	2	3	4	5	Communication/Interaction	1	2	3	4	5	6	7	8	9	10
19	1	2	3	4	5	Management skills	1	2	3	4	5	6	7	8	9	10
20	1	2	3	4	5	(a) Planning and Organising	1	2	3	4	5	6	7	8	9	10
21	1	2	3	4	5	(b) Leading	1	2	3	4	5	6	7	8	9	10
22	1	2	3	4	5	(c) Control	1	2	3	4	5	6	7	8	9	10
23	1	2	3	4	5	Quality Management (if applicable)	1	2	3	4	5	6	7	8	9	10

The following performance aspect should be assessed only if the relevant part of Section II was completed.

24	1	2	3	4	5	Selling	1	2	3	4	5	6	7	8	9	10
----	---	---	---	---	---	---------	---	---	---	---	---	---	---	---	---	----

SUMMARY : APPRAISAL OF BROAD PERFORMANCE ASPECTS

This must be completed for all persons assessed on this form.

If you were to summarise in one score the above appraisal of performance aspects, circle the figure which would best reflect the result.

PERFORMANCE RELATIVE TO LEVEL REQUIRED BY JOB									
Falls well below	Some-what lower	Meets requirements	Some-what higher	Much higher					
1	2	3	4	5	6	7	8	9	10

49 - 51

4. SUCCESSION INFORMATION

5	DUP
1	2

Could this person be promoted to a more senior managerial position?

Yes	Doubtful	No
1	2	3

14

If "Yes":

6 Months	12 months	18 months	24 months or more	15
2	3	4	5	

(a) In what time period?

(b) To which post? (Specify one only)

Departmental manager (see below)	Manager Category 1	Manager Category 2	Manager Category 3	Manager Category 4	Manager Category 5 Branch (Not Area Branch)	Area Manager Cat. C	Area Manager Cat. B	Area Manager Cat. A	Other (specify)
128	335	336	337	338	339	329	328	330	16 - 18

For Departmental Manager only :

Credit	Foreign	Investments	General office
1	2	3	4

19

Authorised by

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

20 - 29

First 10 letters of surname

(To be signed by a person of at least general managerial status or area manager where applicable)

[illegible]

Salary number

If "No" or "Doubtful", what is the major reason?

Recently appointed/ promoted	Needs more experience	Has reached full potential	Specialised/ Employed for one job	Does not show supervisory ability	Lacks confidence/ motivation/ drive	Close to retirement	Other (specify)
01/01/00	01/06/00	01/07/00	01/08/00	01/09/00	01/10/00	01/05/00	36 - 37

5. Is the position that is held by this person seen as a key position?
(Refer to Appraiser Guide for definition of key position)

☒	Yes	☒	No	☐	38
				☐	39

6. To which job family is this person best suited?
(Consult the Appraiser Guide before answering this question)

First choice : Code

70	2504
----	------

40	4
----	---

Second choice : Code

1	2504
---	------

42	4
----	---

- 44

In-house courses: Please indicate which in-house courses this person should attend (Do not specify more than 2)

External educational courses: What external training programme/course of study should this person attend.
(Do not specify more than 2)

(b) What major training need have you identified which is not covered by courses presently available (one area only). Write in the training, do not code.

Code			45 - 47
Code			48 - 50
Code			51 - 53
Code			54 - 56
			57 - 59

8. PLEASE USE THIS SPACE TO ADD ANY REMARKS WHICH YOU FEEL ARE RELEVANT

The remarks should be written in block capitals with one letter per block.
Do not exceed the total available space.

62 73

6	DUP	
1	2	15

14	45
----	----

46 77

7	1-10-81 DUP
1	2-10-81

14 45

APPRAISOR DETAILS

[illegible]

Signed: _____

APPENDIX 6

THE DEFINITION OF COGNITIVE SKILLS

THE DEFINITION OF COGNITIVE SKILLS
IN THE PERFORMANCE APPRAISAL

The performance appraisal items which were included in cognitive skills are given below.

The scores used were the mean of the scores for the domains of Initiative/Flexibility and Problem Analysis. The domains are defined by the following items:

Initiative/Flexibility

- Rises to the challenge posed by difficulty aspects of the job.
- Improves the efficiency of his/her area of responsibility through own initiative.
- Modifies management approach and style when necessary to reach a goal.
- Acts independently within the framework of overall policy.
- Suggests alternative solutions to overcome obstacles.

Problem Analysis

- Analyses information effectively to arrive at well-integrated conclusions.
- Anticipates potential problems and is prepared with alternatives when they arise.
- Identifies the cause of a problem by asking penetrating questions.
- Bases decisions on complete and valid information.
- Keeps the overall picture in mind, and does not get bogged down in hidden detail.

APPENDIX 7

THE DEFINITION OF INTERPERSONAL SKILLS

THE DEFINITION OF INTERPERSONAL SKILLS IN
THE PERFORMANCE APPRAISAL

The scores used in this instance were the means for the domains of Communication/Interaction and Leading. The items were:

Communication/Interaction

- His/her manner and bearing inspire confidence.
- Presents concepts orally in a confident, informative manner.
- Participates constructively in group/team discussions.
- Communicates effectively at all levels.

Leading

- Readily provides clear direction for others.
- Commands the respect of staff.
- Meets requirements through teamwork.
- Identifies and develops staff with potential.

- Provides effective performance feedback to his/her staff.
- Keeps staff informed about matters and changes affecting them and their work.
- Encourages participation in decision making.
- Allows staff to accept responsibility for delegated work.
- Acknowledges others for work well done or good performance.
- Encourages and supports subordinates in the execution of their tasks.

APPENDIX 8

DATABASE LISTING

DATABASE LISTING - PART 1

	I E T O T A L	P O L C O N	S O C R E L	P E R S N	L U C K	S H O R T I E	P E R S I S T	T I M E	A C T I O N	A S P L E V L	P E R C A U S	G O L I R	P E R E X C L	A M Q T O T
1														
2	6	2	0	2	0	4	19	13	9	15	9	41	24	65
3	4	2	1	0	0	3	16	16	9	14	10	41	24	65
4	2	1	1	0	0	2	21	19	4	21	13	44	34	78
5	4	0	1	2	0	3	21	18	9	13	9	48	22	70
6	4	0	3	0	0	3	19	17	9	13	10	45	23	68
7	10	4	1	1	2	8	16	12	8	10	9	36	19	55
8	5	1	1	1	1	4	15	14	6	9	7	35	16	51
9	4	1	1	0	1	3	14	13	9	12	8	36	20	56
10	2	1	0	0	0	1	19	13	8	14	11	40	25	65
11	7	2	1	3	0	6	15	12	3	18	8	30	26	56
12	5	2	0	1	0	3	21	18	8	14	12	47	26	73
13	3	1	0	1	0	2	20	19	9	19	12	48	31	79
14	6	1	1	2	1	5	20	14	6	9	10	40	19	59
15	7	3	3	0	0	6	15	13	7	18	12	35	30	65
16	12	3	3	4	0	10	10	8	6	9	7	24	16	40
17	11	2	3	1	3	9	14	8	4	10	8	26	18	44
18	3	1	1	0	0	2	21	17	9	19	10	47	29	76
19	2	1	0	0	0	1	14	13	6	9	7	32	16	48
20	11	4	2	2	1	9	19	16	8	19	12	43	31	74
21	0	0	0	0	0	0	21	18	9	19	12	48	31	79
22	12	3	3	2	2	10	20	19	9	19	9	48	28	76
23	2	0	0	1	0	1	18	18	7	18	13	45	31	76
24	5	1	1	1	1	4	14	14	6	19	13	40	32	72
25	3	1	1	1	0	3	20	9	9	15	13	38	28	66
26	6	3	0	2	0	5	19	17	9	15	11	45	26	71
27	13	3	4	3	2	12	14	17	8	12	11	39	23	62
28	3	1	1	0	0	2	20	18	6	19	11	44	30	74
29	10	3	1	3	2	9	16	12	9	4	5	37	9	46
30	8	1	1	3	1	6	19	13	9	18	10	41	28	69
31	3	1	1	0	0	2	20	20	8	19	10	48	29	77
32	8	4	2	1	0	7	17	9	3	20	10	29	30	59
33	6	2	1	1	2	6	15	10	6	7	11	31	18	49
34	13	4	2	5	1	12	18	13	8	17	12	39	29	68
35	1	0	0	0	0	0	19	15	8	20	13	42	33	75
36	6	3	0	2	0	5	19	19	4	13	9	42	22	64
37	9	0	2	3	3	8	18	14	9	18	12	41	30	71
38	5	2	1	1	0	4	17	16	4	16	9	37	25	62
39	4	1	0	2	0	3	19	17	8	16	11	44	27	71
40	5	1	1	2	0	4	18	10	6	18	11	34	29	63
41	5	1	0	2	0	3	18	16	7	18	11	41	29	70
42	11	1	3	2	3	9	15	12	6	18	11	33	29	62
43	1	0	0	0	0	0	19	17	5	20	11	41	31	72

DATABASE LISTING - PART 1

	IE	POL	SOC	PERS	LUCK	SHORT	PERSIST	TIME	ACTION	ASPL	PERR	GOAL	PERR	AMQ
	TOTAL	CON	REL	CON		IE				LEVEL	CAS	DIR	EXCL	TOT
44	6	2	0	2	0	4	18	14	6	16	11	38	27	65
45	4	1	0	2	0	3	17	14	8	15	8	39	23	62
46	3	1	0	1	0	2	15	12	8	11	12	35	23	58
47	8	1	2	3	1	7	12	9	1	19	11	22	30	52
48	4	1	1	1	1	4	20	15	9	17	11	44	28	72
49	8	2	1	3	1	7	13	12	8	10	7	33	17	50
50	16	4	4	4	2	14	12	17	6	14	8	35	22	57
51	5	2	1	1	0	4	18	9	5	15	9	30	24	54
52	3	0	0	1	1	2	19	16	9	14	10	44	24	68
53	3	0	2	0	0	2	17	18	8	17	9	43	26	69
54	5	1	0	2	1	4	17	13	4	14	12	34	26	60
55	6	3	2	1	1	7	19	15	7	15	13	41	28	69
56	3	0	0	1	1	2	16	17	6	12	9	39	21	60
57	5	2	0	2	0	4	20	15	7	17	13	42	30	72
58	5	1	1	1	0	3	13	6	2	16	11	21	27	48
59	5	0	1	3	0	4	10	13	4	13	10	27	23	50
60	11	3	2	2	2	9	18	19	6	17	12	42	29	71
61	10	4	1	2	2	9	14	14	8	17	11	36	28	64
62	2	1	0	0	0	1	17	9	6	15	8	31	23	54
63	10	3	2	2	1	8	13	13	4	14	11	30	25	55
64	2	0	1	0	0	1	19	18	6	19	12	43	31	74
65	10	3	2	3	1	9	10	6	6	17	11	21	28	49
66	6	2	1	2	0	5	19	10	8	17	12	37	29	66
67	6	3	1	0	1	5	18	12	8	19	11	38	30	68
68	7	3	1	1	1	6	18	16	4	7	10	38	17	55
69	3	0	1	1	0	2	19	16	8	16	11	43	27	70
70	7	4	0	2	0	6	17	20	9	13	10	46	23	69
71	3	1	1	0	0	2	20	17	8	16	11	45	27	72
72	6	1	2	2	0	5	17	15	8	18	9	40	27	67
73	5	2	0	1	0	3	15	17	8	12	10	40	22	62
74	9	4	2	2	0	8	15	15	3	10	6	33	16	49
75	4	1	1	1	0	3	17	12	6	14	10	36	24	59
76	7	3	2	1	0	6	17	12	4	20	11	33	31	64
77	8	3	2	2	0	7	18	12	4	18	11	34	29	63
78	6	1	2	2	0	5	18	13	9	16	8	40	24	64
79	11	2	0	4	2	8	13	15	8	7	8	36	15	51
80	8	3	3	0	1	7	19	12	8	9	8	39	17	58
81	13	4	2	4	2	12	17	13	9	16	6	39	22	61
82	7	3	0	0	2	5	15	12	9	15	11	36	26	62
83	4	2	0	1	0	3	20	16	8	18	9	44	27	71
84	11	4	2	2	1	9	16	16	5	18	12	37	30	67
85	9	1	1	4	2	8	18	13	7	15	9	38	24	62
86	4	0	1	1	0	2	16	11	8	16	12	35	28	63

DATABASE LISTING - PART 1

	I E	P O L	S O C	P E R S	L U C K	S H O R T	P E R S I S T	T I M E	A C T I O N	A S P	P E R	G O A L	P E R	A M Q
	T O T A L	C O N	R E L	C O N		I E				L E V L	C A U S	D I R	E X C L	T O T
87	9	2	3	2	1	8	18	16	4	17	12	38	29	67
88	7	2	2	2	0	6	18	14	7	15	12	39	27	66
89	6	2	0	2	0	4	19	13	7	14	10	39	24	63
90	6	4	1	0	0	5	18	14	7	18	12	39	30	69
91	3	1	1	0	0	2	15	11	5	16	7	31	23	54
92	5	3	0	0	1	4	17	15	9	8	10	41	18	59
93	11	3	2	2	2	9	10	8	6	4	7	24	11	35
94	4	2	2	0	0	4	19	20	8	17	11	47	28	75
95	13	3	3	4	1	11	20	18	5	9	7	41	16	57
96	12	4	1	3	1	9	15	12	9	9	7	36	16	52
97	4	2	0	0	0	2	18	15	4	17	11	37	28	65
98	6	3	2	0	0	5	18	17	6	16	11	41	27	68
99	1	0	0	0	0	0	17	12	5	14	12	34	26	60
100	10	4	2	3	0	9	15	12	6	12	11	32	23	55
101	13	4	3	2	2	11	19	8	7	15	8	32	23	55
102	5	3	0	0	0	3	18	10	7	12	11	35	23	58
103	10	3	1	2	2	8	11	11	8	6	4	30	10	40
104	1	0	0	1	0	1	17	20	6	17	10	43	27	70
105	11	4	1	2	2	9	17	16	4	16	12	37	28	65
106	6	2	1	1	0	4	19	16	8	15	11	42	26	68
107	4	1	0	2	0	3	17	13	5	17	10	35	27	62
108	6	2	2	2	0	6	19	18	9	15	9	46	24	70
109	9	3	1	3	1	8	9	11	5	15	9	25	24	49
110	7	3	1	1	0	5	17	8	6	20	11	31	31	62
111	8	3	2	2	0	7	19	18	8	15	11	45	26	71
112	10	2	0	3	3	8	12	12	8	13	8	30	21	51
113	8	4	1	1	1	7	13	12	7	16	8	32	24	56
114	12	3	3	3	1	10	20	16	9	15	11	45	26	71
115	3	0	1	1	0	2	21	13	8	20	12	42	32	74
116	8	2	1	2	2	7	13	13	2	10	9	28	19	47
117	9	2	3	2	0	7	18	19	7	17	12	44	29	73
118	4	2	1	0	0	3	16	10	8	8	11	34	19	53
119	9	3	1	2	2	8	20	20	9	18	11	49	29	78
120	7	2	1	1	1	5	20	16	8	21	13	43	34	77
121	12	3	3	4	0	10	16	12	7	17	11	35	28	63
122	8	1	3	2	0	6	20	12	9	19	10	41	29	70
123	6	1	0	4	0	5	19	13	8	16	9	40	25	65
124	6	1	2	2	0	5	18	15	4	9	12	37	21	58
125	11	3	2	4	1	10	16	15	7	13	10	38	23	61

DATABASE LISTING - PART 2

	A G E	L A N G U A G E	E X P R I E N C E	M A N E X P	C U R P O S	U N I V E R S I T Y	B A N K E X M	C O G S K I L L	I P S K I L L	P O T E N T I A L
2	48	1	31	14	3			78	78	2
3	56	2	35	19	5		3	46	50	2
4	39	1	10	7	1		3	80	84	1
5	52	1	38	19	2		3	82	81	2
6	40	2	17	8	1			70	73	2
7	39	2	9	4	2		2	59	66	2
8	44	1	11	2	2	1	3	62	66	2
9	45	1	11	9	2		1	63	65	2
10	46	2	23	7	3			69	72	2
11	42	2	23	11	2		2			2
12	40	2	13	8	6			67	62	2
13	49	2	21	14	1		1	68	69	2
14	42	1	18	4	3		3	64	67	2
15	39	1	9	5	2		3	77	80	1
16	43	1	18	4	2		1	62	61	2
17	45	1	26		1			70	76	2
18	43	1	26	15	2	2	3	69	72	1
19	41	2	16	7	2	1		60	67	2
20	31	1	12	4	0		3			1
21	42	2	14	5	1		1	61	58	2
22	34	1	7	1	0	1		68	53	1
23	41	1	14	12	5		1	68	78	1
24	31	1	7	1	1		3			2
25	58	2	36	22	2		1	57	58	2
26	39	2	21	4	1	1	1	82	77	2
27	36	1	3	2	1			67	68	1
28	36	1	17	5	2	1	2	72	67	2
29	52	2	32	8	8		1	68	67	2
30	54	2	34	19	19		1	81	82	2
31	47	1	30	17	2			88	86	1
32	44	1	24	11	2		1	78	75	1
33	42	1	15	3	3		3	63	65	2
34	47	1	14	6	2		3	78	74	2
35	36	1	16	2	1		2	58	54	2
36	41	2	22	7	7		1	65	60	2
37	44	2	9	7	4			74	76	2
38	36	1	17	8	6		1	68	70	1
39	40	2	22	11	2		3	84	87	1
40	43	2	21	4	3		1	74	78	2
41	43	1	23	5	5		1	56	59	2
42	44	1	23	11	4		1	77	78	2
43	51	1	23	19	2	1		43	46	2

DATABASE LISTING - PART 2

	A G E	L A N G U A G E	E X P R E S S E	M A N E X P	C U R P O S	U N I V E R S I T Y	B A N K E X M	C O G N I T I V E	I P S K I L L	P O T E N T I A L
44	49	1	29	21	2		1	69	73	2
45	51	2	33	10	10	2		43	44	2
46	45	1	18	9	8	1		74	72	2
47	53	1	35	22	2		1	87	86	1
48	37	1	16	4	2		2	72	70	2
49	48	2	25	11	11			67	63	2
50	45	1	10	9	2		3	71	72	2
51	47	1	25	12	12		1	79	78	2
52	42	2	14	2	2		3	69	70	2
53	54	2	16	14	14			62	59	2
54	56	2	11	11	10			81	80	2
55	41	1	22	9	5			80	79	1
56	45	1	26	13	2			66	66	2
57	42	2	17	11	5		3	74	77	2
58	51	1	34	23	2		3	79	76	2
59	47	1	28	17	2		2	78	73	2
60	45	2	17	13	10			69	69	2
61	45	1	19	11	2			72	69	2
62	45	1		10	4		1	60	63	2
63	34	1	16	3	1			67	67	2
64	43	2	6	4	1		2	57	70	2
65	44	1	18	5	5			53	54	2
66	47	1	16		1		1	61	60	2
67	35	2	17	4	4			79	81	2
68	38	1	12	4	2			73	74	2
69	42	1	11	1	1					2
70	44	1	18	11	2	2		73	75	1
71	49	1	30	16	1			81	75	1
72	36	2	18	2	2	1	1	71	74	1
73	45	1	2	3	2			71	68	2
74	65	2	27	7	6			59	61	2
75	39	2	21	5	3			74	72	2
76	39	1	15	4	1			49	49	2
77	47	2	26	15	0		1	69	72	2
78	49	2	13	11	2	1	1	64	77	2
79	39	2	17	5	1			75	73	2
80	42	1		7	3			70	73	2
81	34	1	11	4	2		3	81	67	2
82	47	1	21	8	3		1	64	61	2
83	37	1	13	2	2		1	82	81	2
84	39	2	17	7	4	2		63	62	1
85	41	1	20	13	4	1	1	79	77	2
86	39	1	18	4	3		3	74	74	2

DATABASE LISTING - PART 2

	A G E	L A N G U A G E	E X P R E N C E	M A N E X P	C U R P O S	U N I V E R S I T Y	B A N K E X M	C O G S K I L L	I P S K I L L	P O T E N T I A L
87	32	1	11	1	1			56	47	2
88	41	1	22	9	1		3	67	64	2
89	52	2	20	5	5			57	56	2
90	60	2	39	22	2		1	76	75	2
91	46	1	14	6	2		2	70	67	2
92	42	1	24	14	2			61	63	2
93	58	2	37	26	2		1	67	69	2
94	40	1	22	1	1			61	66	2
95	43	2	23	11	8	2		72	69	2
96	42	1	22	7	1		1	80	76	1
97	41	1	23	9	2			67	64	2
98	50	2	27	20	7	1	3	81	80	2
99	44	1	27	10	4		2	78	72	2
100	39	1	17	7	2			61	71	2
101	54	2	36	18	3		3	81	78	2
102	40	2	18	4	3			70	70	2
103	51	2	32	8	8		1	63	66	2
104	43	2	25	7	7	2		51	50	2
105	40	2	19	6	3			61	64	2
106	41	2	16	5	4			69	69	2
107	45	2	26	11	2		2	63	67	2
108	44	1	26	14	2		3	54	55	2
109	40	1	10	3	2		3	71	70	1
110	34	1	17	4	1		2	73	73	2
111	34	2	16	2	0			72	76	2
112	35	1	17	1	1		1	78	74	2
113	43	2	16	6	6		1	63	63	2
114	41	1	17	3	0		3	68	69	2
115	43	2	26	6	3		1	61	62	2
116	36	2	14	5	0	2	1	78	79	1
117	33	1	9	3	0		2	78	76	1
118	56	1	36	22	20		3	75	75	2
119	56	1	36	22	19		3	47	47	2
120	28	2	10	3	1		3	77	72	2
121	44	1	23	10	2		1	70	71	1
122	46	2	27	16	2		1	74	78	1
123	45	1	26	11	5		1	63	64	2
124	52	2	1	2	2	1		61	57	2
125	34	1	16	4	1			74	72	1

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