

**THE IMPACT OF CHANGE MANAGEMENT ON ROLE CONFLICT, ROLE
AMBIGUITY AND JOB SATISFACTION IN A TRANSPORT ORGANISATION**

by

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SUMMARY

Organisations and job content will continually change irrespective of the employee or job context. The ability to understand, initiate and manage change is therefore, an essential skill for any change agent.

The general aim of this research was to investigate the impact of change management on role conflict, role ambiguity and job satisfaction. "Change management", "role conflict", "role ambiguity" and "job satisfaction" were conceptualised. This change process was described and the effect of change management on role conflict, role ambiguity and job satisfaction was determined. Instruments for measuring these concepts were administered among 116 employees who have been subjected to extensive organisational change within a large transport organisation. It was found that change management has a significant impact on role conflict, role ambiguity and job satisfaction.

The change management process used in this research potentially enables Human Resources managers and change agents to reduce role conflict, role ambiguity and job satisfaction during large scale organisation change.

KEY TERMS

Change management, role conflict, role ambiguity, job satisfaction, resistance to change, vision, communication, business processes, team change, leadership.

CHAPTER ONE

INTRODUCTION

This research focuses on change management and the impact thereof on role conflict, role ambiguity and job satisfaction in a transport organisation. The aim of this chapter is to provide a theoretical background for change and formulate the problem statement and aims of the research. It also includes the research model, paradigmatic perspectives, research design and research method.

1.1 BACKGROUND

A worldwide recession characterised by business failures and the challenge of organisational growth has led to an increasing awareness that change is a process that is to be managed. The added pressure resulting from developments in the field of information technology is presenting all organisations, large and small, with formidable challenges in terms of change (Mayon-White, 1986: 2). In response, to this situation, most organisations periodically undertake at least moderate organisational change (Mayon-White, 1986: 161). Currently the areas in which the pressures for change seem most powerful are those centered around people, technology, competition, information processing and communication (Moorhead & Griffin, 1995: 488).

Understanding change and the process of changing are complex, because the phenomena are so complicated and only partially understood (French, Bell & Zawacki, 1983: 62).

Although change is the vigour of operations and the basis for improvement, it is a terrifying experience to many. Change must be managed by considering the systemic nature of the process (Hensler, 1993: 24). Attempts at carrying out programmatic, continuous change through isolated single efforts are likely to fail because of the effects of the system context (Kanter, Stein & Jick, 1992: 7). When change occurs in one of the organisation's components or subsystems, other subsystems tend to react to restore the balance or equilibrium (Burke, 1987: 78).

Within an organisational context, resistance to change can be understood when it is realised that, from a behavioural point of view, organisations are coalitions of interest groups in tension (Mayon-White, 1986: 142). From an organisational change perspective, what may seem to be resistance might instead be quandary. The focus here is the acceptance that individual or group resistance creates energy for effective organisational change, which needs to be meaningfully directed. Apathy, which is difficult to orient or direct, is therefore worse than resistance to change (Burke, 1987: 162).

Middle managers and first-line supervisors often resent the change process because of perceived power shifts and loss of authority. The contradiction between what they are told and their own experiences, and a belief that two sets of rules exist, also contributes to this feeling of resentment. For the change process to be successful, the trust and commitment of these managers and supervisors must be gained (Harshman & Phillips, 1994: 153). Due to the demands of the fast-changing competitive scene, we must simply learn to love change as much as we hated it in the past (Peters, 1987: 45). During any complex change process, a "critical mass" of individuals or groups (whose active commitment is necessary) provides the energy for change to occur (Burke, 1987: 92).

The quality of life in future depends on the ability to meet the challenge of transforming organisations (Harshman & Phillips, 1994: 179). It must be considered that there is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things (Mayon-White, 1986: 160).

From the above discussion the dynamic and complex nature of change and the important role that organisational members fulfil in the process becomes evident.

At the transport organisation studied here, some of the key thrusts of the vision are to (a) create a business culture linking costs to activities and (b) render a valuable service to clients. Within this context, the organisation has the challenge of

improving its maintenance cost management while increasing the reliability of the vehicle fleet. The Maintenance, Organisation, Network, Available, Reliable, Cost, Stock, (MONARCS) project has been established with the view of implementing an information system. The system Application Products R3 Client Server System or "(SAP R/3) system" is to provide information support for achieving these key thrusts of broader organisational vision.

The above changes will affect the entire organisation, resulting in significant changes to people's roles and responsibilities. The change process is therefore supported by a change management initiative that focuses on managing the impact of change on people to ensure that all those affected are competent, motivated and informed.

The objectives of the MONARCS project were to:

- provide a more scientific approach to the maintenance of equipment;
- optimise maintenance cost;
- improve scheduling of maintenance operations;
- reduce stock levels through materials planning and control; and
- contribute towards improved reliability and availability of the vehicle fleet.

A full-time project team was established to complete the project.

The project consisted of the following phases:

- Business process re-design.
- Customisation and implementation of the improved processes and the (SAP

system. This involved implementing SAP software and the supporting technology for each of the four identified pilot sites referred to in chapter four (page 58).

- After completion at the pilot sites, referred to above, implementation in other organisational units will be undertaken.

Considering the critical role of change management in the process, it is essential to determine its effectiveness, before further implementation in other organisational units.

1.2 PROBLEM STATEMENT

From the above, the following research questions are formulated.

- What is change and change management and how do this apply in organisational context?
- What is role conflict, role ambiguity and job satisfaction, does a relationship between them exist and how do this apply in organisation context?
- Is there a theoretical relationship between change management as one variable and role conflict, role ambiguity and job satisfaction as another variable?
- Does the introduction of change management predict role conflict, role ambiguity and job satisfaction amongst employees working together in the aforementioned organisation?
- What guidelines can be recommended with reference to existing literature on the concept, the future implementations at change in this organisation as well as generally in Organisational Psychology and Psychometrics?

1.3 AIMS OF THE RESEARCH

From the above research questions, the following specific aims are formulated.

The general aim of this research is to determine if change management impacts on role conflict, role ambiguity and job satisfaction.

The specific aims in terms of the literature review are the following.

- To define change, change management and to discuss its application in organisational context.
- To define role conflict, role ambiguity and job satisfaction, the relationship between them and to discuss its application in organisational context.
- To determine the theoretical relationship between change management as one variable and role conflict, role ambiguity and job satisfaction as another variable in order to formulate an empirical hypothesis.

The specific aims in terms of the empirical study are the following.

- To determine whether the introduction of change management, predicts role conflict, role ambiguity and job satisfaction amongst employees working together.
- To formulate recommendations in terms of change management with reference to the existing literature on the concept, the future implementation of change in this organisation as well as generally in Organisational Psychology and Psychometrics.

1.4 RESEARCH MODEL

The research model of Mouton and Marais (1990: 7-26) serves as a framework for this research. The function of this model is to incorporate the five dimensions of social science, namely, the sociological, ontological, teleological, epistemological and methodological dimensions. Furthermore, it systematises these dimensions within the framework of the research process.

The assumption of this model is that research represents a social process. According to the model, social sciences research can be defined as: "a collaborative human activity in which social reality is studied objectively with the aim of gaining a valid understanding of it" (Mouton & Marais, 1990: 7). In figure 1.1 this model is portrayed as a systemic theoretical model with three interrelated subsystems within a research domain of the specific discipline (in this instance Industrial Psychology).

The subsystems represent the intellectual climate, the market of intellectual resources and the research process itself.

According to Mouton and Marais (1990: 21) the term "intellectual climate" refers to the variety of metatheoretical values underlying this research. These values, assumptions and beliefs can usually be traced to non-scientific contexts. Many of these values' roots are found in philosophy and are mostly neither testable, nor were they ever meant to be tested. For the purpose of this research these assumptions are formulated with respect to beliefs about industrial psychology, organisational psychology and psychology of health and work.

Intellectual resources refer to the specific values, which have a direct impact on the epistemic states of scientific statements (i.e. to their status as knowledge-claims). The major types of beliefs in this regard are theoretical beliefs about the nature and structure of phenomena and methodological beliefs concerning the nature and structure of the research process (Mouton & Marais, 1990: 21).

With the aim of this research in mind, theoretical models/theories as well as a conceptual description regarding change management on the one hand and role conflict, role ambiguity and job satisfaction on the other hand are presented.

In the research project the researcher internalises specific inputs from the paradigm(s) to which she subscribes in a selective manner. The purpose is to interact with the research domain in a fruitful manner and to produce scientifically valid research (Mouton & Marais, 1990: 23). A distinction is made between the determinants of research decisions on the one hand and the decision-making process on the other hand.

With regard to the determinants of the research decisions, a description of the research design is given in terms of its descriptive nature.

The aims of the research are also formulated with regard to the two phases of the literature review and the empirical study. According to the theoretical methodological framework, phase one would refer to 1) change management and 2) role conflict, role ambiguity and job satisfaction. With the decision-making steps in the research process in mind, the research method is described in two phases, each with specific distinguishable and consecutive steps.

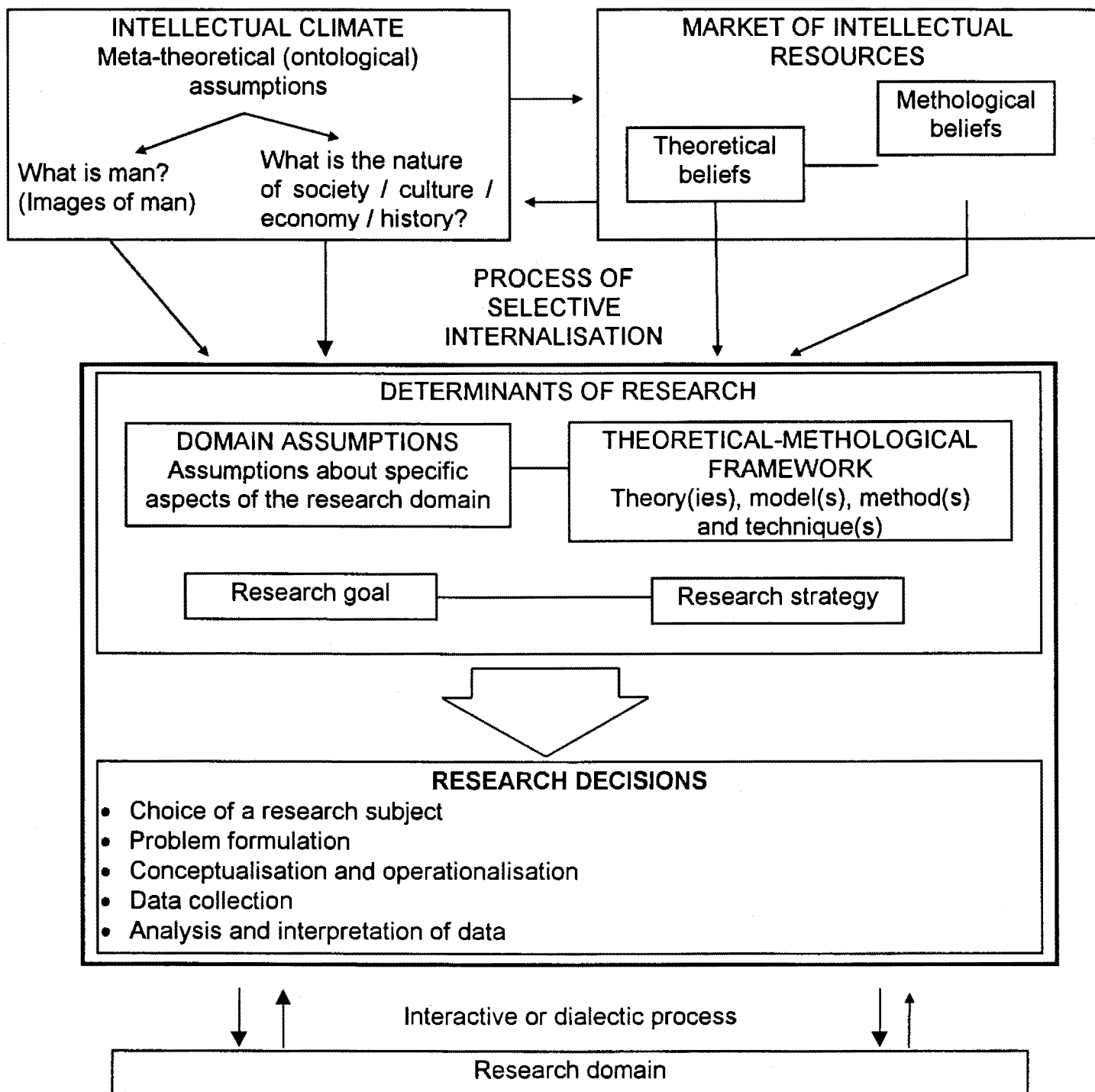


FIGURE 1.1 AN INTEGRATED MODEL OF SOCIAL SCIENCES RESEARCH (MOUTON & MARAIS, 1990: 22)

1.5 PARADIGMATIC PERSPECTIVE OF THE RESEARCH

According to the literature on research (Kuhn, 1970, in Morgan, 1980: 606; Mouton & Marais, 1990; Patton, 1975: 9), the following serves as boundary conditions for this research project.

The research falls within Industrial Psychology and more specifically the subdisciplines of Organisational Psychology and Psychometrics.

Thematically the literature review will centre around change management, role conflict, role ambiguity and job satisfaction.

The research project will be presented from the following paradigms in psychology as points of departure.

On the meta-level the organisation and its behaviour is seen from a systems viewpoint. The following basic assumptions will thus apply in considering the research design, method and interpretation of the results (Katz & Kahn, 1978: 23-30).

- Open systems consume and transform energy received from the external environment.
- The throughput of energy entails reorganisation of the input received.
- The output represents the emission of transferred energy to the environment.
- Systems are characterised by cycles of events during energy exchange with the environment.
- To survive, open systems must reverse the entropy process commonly referred to as "negative entropy".

- Information input consisting of negative feedback enables the system to correct its deviation from its main course.
- The steady state and dynamic homeostasis preserve the character of the system.
- Open systems move in the direction of differentiation and elaboration.
- Integration and co-ordination processes help to achieve unification.
- System tends to reach a final state referred to as "equifinality".

The literature on the concepts of change management, role conflict, role ambiguity and job satisfaction will be presented from the humanistic viewpoint. The following basic assumptions about human behaviour will thus apply (Quitmann, 1985: 16-17).

- Humans have and make decisions based on choices. They need not be passive spectators, but can actively change their lives and situations surrounding it. Underlying to this is the need for actualisation of potential.
- Humans are conscious beings. Irrespective of the amount of consciousness not assessable the available consciousness forms a characteristic and basis for understanding and experience.
- A human being is characterised by synergism.
- Human existence is intentional. This forms the basis of human identity.
- Humans exist within a human context.

The empirical study will be presented from the functionalistic paradigm and the results obtained will be interpreted within the growth perspective of the above mentioned humanistic viewpoint.

The following are the basic assumptions of the functionalistic paradigm (Morgan, 1980: 608):

- It encourages an approach to social theory that focuses upon understanding the role of human beings in society;
- Behaviour is always seen as being contextually bound in a real world of concrete and tangible social relationships;
- It is concerned with understanding society in a way which generates useful empirical knowledge;
- The functionalist perspective is primarily regulative and pragmatic in its basic orientation; and
- Society has a concrete, real existence, and a systemic character oriented to produce an ordered and regulated state of affairs.

Thematically the empirical study will focus on the predictive value of change management towards role conflict, role ambiguity and job satisfaction.

Metatheoretical statements

The metatheoretical assumptions represent an important category of assumptions underlying the theories, models and paradigms that form the definitive context of this study. The metatheoretical values or beliefs have become part and parcel of the intellectual climate of a particular discipline in the social sciences (Mouton & Marais, 1990: 21). In terms of this research, metatheoretical statements are presented on the following:

1. Industrial Psychology

Industrial Psychology refers to a branch of applied psychology (Reber, 1988: 352). In essence it is an umbrella term covering organisational, military, economic and personal psychology and includes such areas as tests and measurements, the study of organisations and organisational behaviour, personnel practices, human engineering, human factors, the effects of work, fatigue, pay and efficiency, consumer surveys, market research, etc. With reference to this research, change management and role conflict, role ambiguity and job satisfaction influencing human and organisational behaviour are studied.

2. Organisation Psychology

Organisation psychology is the study of organisations, the elements and systems it consists of and the factors influencing its functioning and more specifically, the interaction between the individual and the organisation (Plug, Meyer, Louw & Gouws, 1990: 256).

3. Psychological Health and Work

Psychological Health and Work refers to a branch of Psychology that entails the study of abnormal behaviour (Plug *et al*, 1990: 2).

The theoretical concepts will be explored from the following theoretical models and theories.

Change management will be discussed from the French *et al* (1983), Nadler and Tushman (1989), Lewin (1958), models with reference to the theories by Burnes (1992), Bennis (1985), Albrecht (1983), Cummings and Worley (1993), Huse (1980), Harshman and Phillips (1994), Carnall (1990), Lawrence (1991) and Mayon-White (1986).

Role conflict, role ambiguity and job satisfaction will be discussed from the models by Harigopal (1995), Katz and Kahn (1978), Kahn (1964), Rahim (1986), McAlister (1979) and Rediger (1983).

Change is seen as being driven by key elements. The old culture and norms of an organisation are questioned followed by learning experiences which facilitate a paradigm shift from old theories and practices to new ones (Harshman & Phillips, 1994: 17). Change management is the process of moving the organisation from its current state to some planned future state that will exist after the change (Bateman & Zeithaml, 1993: 634).

Katz and Kahn (1978: 186) postulate that organisations are systems of roles. Organisations are made up of many people playing certain prescribed roles. Each role has its own relationship to every other role and to the organisation as a whole.

1.6 RESEARCH DESIGN

According to Mouton and Marais (1990: 33) the "aim of a research design is to plan and structure a given research project in such a manner that the eventual external and internal validity of the research findings is maximised".

In this research project, the variables are change management (independent variable) and role conflict, role ambiguity and job satisfaction (dependent variables).

The problem statements and aims concerning the literature review will be addressed by means of qualitative, descriptive literature review. The problem statements and aims concerning the empirical study will be addressed by means of a quantitative, investigative approach. This can also be termed hypothesis testing research.

The unit of study is the individual, although recommendations will be formulated for the work team and the organisation based on the results obtained from individuals.

Internal reliability and validity will be ensured by making use of literature searches in phase one of the research and reliable and valid measuring instruments and statistical procedures in phase two. Discussions with experts in the field of change management will take place throughout the research project.

1.7 RESEARCH METHOD

This research will be conducted in two phases, each with its subjacent steps.

Phase 1 Literature review

Step 1 Change management in the organisational context.

Change management will be defined and described in the organisational context. Specific factors such as theoretical foundations, models of organisational change, implementation and managing of change will be discussed to determine how the organisation can react in order to assist with internalisation of the change process.

Step 2 Role conflict, role ambiguity and job satisfaction

The impact of change management on role conflict, role ambiguity and job satisfaction will be defined and discussed. Specific factors such as the definition of organisational roles, problems with organisational roles and the relationship between role conflict, role ambiguity and job satisfaction will be discussed.

Step 3 Integration of change management and role conflict, role ambiguity and job satisfaction

A theoretical integration will be given in order to formulate the empirical hypothesis.

Phase 2 Empirical Study

Step 1 Population and sample

Determining the population and sample and presenting the characteristics of the sample in detail.

Step 2 Compiling and motivating measuring instruments

The battery of instruments to measure the independent variable change management, as well as the dependent variable namely the constructs of role conflict, role ambiguity and job satisfaction is discussed and the inclusion thereof motivated.

Step 3 Data collection

The collection of data is discussed and the procedure motivated.

Step 4 Data processing

The statistical procedures and steps are discussed and motivated.

Step 5 Hypothesis formulation

The empirical hypothesis is presented in terms of the null- and alternative hypothesis.

Step 6 Results

The results are presented according to the data processing steps (refer step four above) and interpreted.

Step 7 Conclusion

The conclusions from the attained results are formulated to solve the set aims of the research project.

Step 8 Limitations of the research

Limitations are formulated in terms of the literature review and the empirical study.

Step 9 Recommendations

Recommendations are formulated in terms of the literature, future research as well as the practical situation around the future implementation of change management and its effect on role conflict, role ambiguity and job satisfaction.

1.8 CHAPTER DIVISION

The chapters will be presented in the following manner:

- Chapter 2 Change management
- Chapter 3 Role conflict, role ambiguity and job satisfaction
Integration
- Chapter 4 Empirical study
- Chapter 5 Results
- Chapter 6 Conclusion, limitations and recommendations

1.9 CHAPTER SUMMARY

In this chapter an introduction in terms of the scientific review of this dissertation was offered. The background to the research, problem statement, aims, research model, paradigmatic perspective, research design, research method and chapter division were presented.

Chapter two discusses change management as a concept.

CHAPTER TWO

CHANGE MANAGEMENT

Chapter two represents the first step in the literature review, namely discussing change management from the humanistic paradigm (as mentioned in 1.5.1, p.9). The aim of the chapter is to describe change management from a theoretical perspective and organisational context. The description of change management will include the concept of change management and the theoretical foundations as well as the different models of organisational change.

2.1 THE NATURE OF CHANGE MANAGEMENT

Beckhard and Harris (1987: 1) describes a continuously changing world in which organisations exist. The core dilemma for executives and leaders is how to maintain stability in their organisations and simultaneously, to creatively adapt to technology, working methods, roles and relationships. This would require innovation, assumptions about the change process and adaptation to external pressure.

Huse (1980: 83) explains change as something that happens to an organisation, a group or an individual. Managed change also involves the active participation of the organisation, group, or individual in making things happen that are in the best interest of both the individual and the organisation. Organisational development is directed at bringing about planned, organised change to increase organisational competence.

According to French *et al* (1983: 62), understanding change and changing is especially difficult and complex because the phenomena are so complex, only partially understood, and intrinsically changing as it is being studied. The core problem in the analysis of a change process is understanding the often confusing and ambiguous patterns which it represents (De Man, 1988: 9).

Katzenbach (1995: 6) describes change as organisational performance which requires of most employees and managers to learn new behaviours and skills and forming a competitive advantage for the enterprise. Change can either encompass an entire workforce, the people in a particular function, or a single organisational unit. It can also refer to dramatic shifts in asset configurations or market concentrations which are not particularly labour intensive. It can even be focused on downsizing, layoffs and the replacement of people. It can also focus on growth, innovation and skills development or include a combination of the above (Katzenbach, 1995: 6).

In conclusion, it appears to be more beneficial to the organisation to rather manage change than view it as something that happens to an organisation and to be even pro-active and create the future. Furthermore, change seems to be a complex concept due to the very changing nature of change itself and the ambiguous patterns it represents. Usually the majority of people in organisations are affected by change whether it manifests itself in re-engineering, restructuring or technological innovations.

2.1.2 Theoretical foundations

According to Burnes (1992: 152) the theory and practice of change management result from a number of social science disciplines and traditions. In order to capture the theoretical essence of change management, three schools of thought seem to form the core of change management theory.

The three main theories that underpin models of change management can be distinguished by their respective concentration on individual, group and organisation wide issues, namely:

- The Individual Perspective School;
- The Group Dynamics School; and

- The Open System School.

2.1.2.1 *The Individual Perspective School*

The Individual Perspective School, focuses on the individual within which two orientations can be distinguished, namely the Behaviourists and the Gestalt-Field Psychologists (Burnes, 1992: 153).

In **Behaviourist** theory, namely, behaviour is conformed by its expected outcome. Behaviour that is rewarded tends to be repeated and behaviour that is punished tends to be avoided. Therefore, in order to change behaviour, it is necessary to change the conditions under which it functions (Skinner, 1974, in Burnes, 1992: 153).

For the **Gestalt-Field** theorists, behaviour is not just a product of external stimuli, but it is a result of how the individual uses reason to interpret these stimuli (Burnes, 1992: 154).

The following assumptions highlight the above:

- People believe that their behaviour is associated with certain outcomes (performance - outcome expectancy).
- Outcomes/rewards have different values for different people. Some people are for example, more attracted to money as a reward than others.
- People associate their behaviour with certain probabilities of success (reward the effort - performance expectancy). Thus, in changing people's behaviour and attitudes, the above theory seems to contribute to change management.

Behaviourists seek to achieve organisational change by using external stimuli. This enables individual members to change their understanding of themselves and the

situation, which in turn will lead to changes in behaviour (Smith *et al*, 1982 in Burnes, 1992: 154).

In order to change human behaviour one needs to understand what creates motivation that guide the individual towards a certain goal. According to Burke (1987: 32) two major approaches to the understanding of human motivation can be distinguished, namely: Need theory and Expectancy theory. The different need theories form part of the Behaviouristic Orientation while the Expectancy Theory, flows from the Gestalt-Field theorists.

Maslow and Herzberg who are proponents of the need theory, both focus on individual needs. Potential application for this lies in career development and job enrichment. This has implications for the design and structure of reward systems and work content (Burke, 1987: 32-34). When used in combination these two approaches of the individual perspective school have proved to be valuable for the management of change.

2.1.2.2 *The Group Dynamics School*

The Group Dynamics School believes in bringing about organisational change through teams or work groups, rather than through individuals (Bernstein, 1968 in Burnes, 1992: 154). Individual behaviour should therefore, be modified or changed in view of existing group practices and norms. The focus of change should therefore, concentrate on influencing and changing group norms, roles and values (French *et al*, 1983: 96-97).

Burnes (1992: 155) describes norms as rules or standards which define what people should do, think or feel in specific circumstances. The Group Dynamics School primarily focuses on implicit norms (informal and unwritten) which impact on the actions of group members.

Roles are described as patterns of behaviour to which individuals are expected to conform (Burnes, 1992: 155). Roles are mainly outlined in job descriptions. Roles

need to be clearly defined, otherwise it could lead to role conflict and role ambiguity on the individual level as well as a decline in organisational performance.

Values are ideas and beliefs, which help individuals to distinguish between right or wrong. Although values are more difficult to determine than roles, it plays a vital role in changing human behaviour.

With the current focus on groups and multi-functional teams in South African organisations, the group dynamics school has proved to be influential in the application of theory and practice of change management. According to Albrecht (1983: 40) the Group Dynamics School has the longest history as a change management approach, and it currently enjoys the widest acceptance as reflected in an extensive body of literature.

Process consultation in a small group context is a primary change management activity. This entails that the consultant observes interpersonal processes during meetings and comment on significant aspects of the interaction process. This method also facilitates more skilful ways of working together.

Although the Group Dynamics School addresses the broader aspects of organisational problem-solving, supporters of this school seems to prefer small group activities as a method for dealing with problems that surface during the diagnostic phase (Albrecht, 1983: 40).

According to Albrecht (1983: 40) the more orthodox practitioners of this school tend to focus on encounter or sensitivity training techniques. French *et al* (1983: 146) state that team building means problem diagnosis and problem-solving workshops involving the use of a facilitator, data gathering about relevant problems and issues to be addressed, feedback on the data, problem prioritisation, problem diagnosis and action planning.

2.1.2.3 *The Open Systems School*

The Open Systems School sees organisations as comprising a number of interrelated sub-systems (Burnes, 1992: 156). This implies that any change to one part of the system will have an impact on other parts of the system and in turn, on its overall performance (Scott, 1987 in Burnes, 1992: 157).

The System Approach is essentially a way of thought to define problems in a systems context. According to Albrecht (1983:43) these subsystems can be described and evaluated to determine what constructive changes one needs to make in order to improve organisational functioning. It leads to the four-step process, namely: assessment, problem-solving, implementation and evaluation.

A distinction should be made between open and closed systems. An open system is one that considers outside factors, which can have an impact on the design process. An open system therefore interacts with the environment. A closed system, on the other hand, is based on the assumption that all inputs can be identified and that all possible variables are usually built into the system (Nadler, 1981: 6).

In the congruence model of organisation behaviour, Nadler and Tushman (1989:102), proposes an open system theory model, indicating the dynamic relationships affecting organisations. Nadler and Tushman (1989: 102) assumes that an organisation is an open system and is therefore influenced by a larger environment (inputs). It, to some extent, also tends to shape the environment by means of outputs. An organisation is therefore, the transformation entity between inputs and outputs (Burke, 1987: 84). Nadler and Tushman's (1989: 102) model is illustrated in figure 2.1.

TRANSFORMATION PROCESS

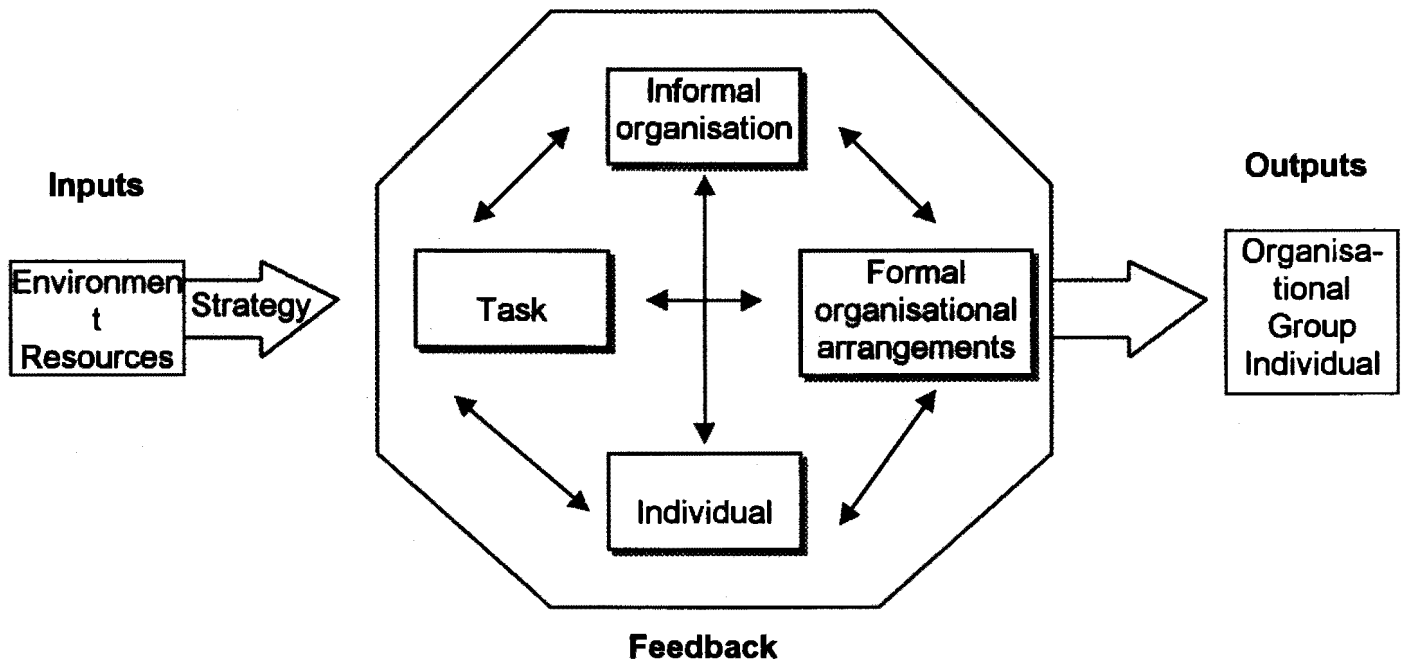


FIGURE 2.1 CONGRUENCE MODEL (NADLER & TUSHMAN, 1989: 102)

Conceptual models of organisations, which are based on the systems approach are extremely useful in organisational diagnosis and enhance the chances of success in Change Management.

A good model increases the understanding of a complex process, representing reality in a simplified and comprehensible form. Organisations interact with the external environment and internally, the various subsystems interact with each other. The aim is to take a holistic and coherent view and achieve synergy on the whole (Mullins, 1989 in Burnes, 1992: 157).

Miller (1967, in Burnes, 1992: 157) defines four organisational sub-systems in which components of Nadler and Tushman's model are included.

- **The organisational Goals-and-Values-Subsystem**

Goals and values should be compatible with each other as well as with the internal and external environments.

- **The Technical Subsystem**

This is the set of knowledge, techniques and technologies, which an organisation requires in order to function effectively. Compatibility and appropriateness are important factors to consider.

- **The Psychosocial Subsystem**

This consists of organisational climate and culture. If an organisation's psychosocial sub-system is weak, distorted or inappropriate, instead of binding the organisation together, it may have a detrimental effect on the entire organisation.

- **The Managerial Subsystem**

It is responsible for relating an organisation to its environment, setting objectives, developing strategic and operational plans, designing structure and establishing control processes. If this subsystem fails, so will the rest of the organisation.

Too high a level of obstruction and complexity are some shortcomings in the Open System School perspective. Beach (1980, in Burnes, 1992: 158) states that one could easily get lost in attempting to conceptualise all the cause-and-effect relationships.

Despite all the above the Open System School has proved to be influential in change management processes. Systems thinking can assist the organisational development practitioner in avoiding single-cause thinking and overly simplistic diagnosis and intervention (Huse, 1980: 68).

In conclusion, Albrecht (1983: 47) states that the manager who can figuratively step back and look at the entire organisation as an interconnected system can deal with its problems more effectively, manage it more effectively, and change it more effectively when it is in need of change.

From the above it is clear that these schools are not necessarily in conflict or competition with each other, but the approaches can also be seen as complementary to each other. One must rather consider in which circumstances each is appropriate (Burnes, 1992: 159).

2.1.3 Models of organisational change

According to Burnes (1992:160) a number of different approaches to change management were developed over the years. Most observers however, agree that these can be divided into three basic models of the change process originating from the pioneering work by Kurt Lewin.

The following models emerged from the work done by Lewin:

- The action research model.
- The three-step model (Lewin's change mode); and
- The phases of the planned change model.

These frameworks describe the activities that must take place to initiate and implement successful organisational change.

The theoretical foundations of this approach lie in the Gestalt-field theory, which emphasise that change can only be achieved successfully by helping individuals to reflect on and gain new insights into their situation. However, there is also a strong link with group dynamics, as it uses teams to solve problems (Burnes, 1992: 162).

2.1.3.1 The action research model

Burnes (1992: 160) define action research as follows: "Action Research is research on action with the goal of making that action more effective. Action refers to programs and interventions designed to solve a problem or improve a condition ... action research is the process of systematically collecting research data about an ongoing system relative to some objective, goal, or need of that system; feeding this data back into the system; taking action by altering selected variables within the system based both on the data and on hypotheses, and evaluating the results of actions by collecting more data."

Cummings and Worley (1993: 55) define the action research model as a cyclical process in which initial research about the organisation provides information to guide subsequent action. The result of the action is evaluated to provide further information to guide further action. Three entities can be distinguished within this approach, (Burnes, 1992: 161), namely:

- The broader organisation.
- The individual or group (the people who make up the area where the change is to take place).
- The change agent or facilitator may not be a member of the organisation.

The change agent provides the methods of investigation in accordance with his or her understanding of the problem (Burnes, 1992: 161).

The organisation members contribute their understanding of the specific situation and its idiosyncrasies. The above information is then presented to the subject for consideration. Feedback is channelled to the other two parties, resulting in a series of actions (Burnes, 1992: 161).

This approach requires commitment of both the organisation and the subject of the change, especially in a large organisation (Clark, 1972 in Burnes, 1992: 162). This implies that if the need for change changes, change in itself becomes problematic (Bennis, 1985: 23).

The action research model constitutes eight main steps (Cummings and Worley, 1993: 56):

- Problem identification.
- Consultation with a behavioural science expert.
- Data gathering and preliminary diagnosis.
- Feedback to key client or group.
- Joint diagnosis of problem.
- Joint action planning.
- Action.
- Data gathering after action.

Albrecht (1983: 35) concludes that this is a useful concept or model because it introduces a scientific orientation to managerial thinking. It legitimises the process of investigating the current status quo in organisations, and proceeding from facts and intelligent speculations rather than depending on pure intuition.

2.1.3.2 *The three step model of change*

Lewin (1958, in Burnes, 1992: 163) identifies three steps to the successful implementation of a change project:

Unfreezing (the present level)

This implies that before new behaviour can be inculcated, it is necessary to discard previous behaviours. The perceived need of the subject for change is once again important in this process. To reduce prejudice, the unfreezing step can entail catharsis or participation in sensitivity training (Burke, 1987: 56). The unfreezing step may also be a series of management training sessions in which the objective for change can potentially be a participative approach or data feedback based on a survey, which indicated serious problems in the managerial process of the organisation. According to Rubin (1967, in Burnes, 1992: 163), unfreezing involves reducing those forces maintaining the organisation's behaviour at its present level. This may also be achieved through team building. It is crucial during this phase to convince people of the need for change.

Moving (to the new level)

Movement means to take action that will change the social system from its original level of behaviour or operation to a new level (Burke, 1987: 56).

According to Cummings and Worley (1993: 53) this involves the development of new values, behaviour and attitudes through changes in organisational structures and processes or team development.

Refreezing (the new level)

Refreezing involves the establishment of a process that will make the new level of behaviour "relatively secure against change" (Burke, 1987: 56). This step stabilises the organisation at a new state of equilibrium. This is accomplished through the use

of support mechanisms that reinforce the new organisational state, such as a new organisational culture, a new approach to managing people, new norms, a new reward system or new policies and structures (Burnes, 1992: 164). The three-step model provides a general framework for understanding organisational change, but it requires further exploration to enhance the practical use of the model (Burnes, 1992: 164).

2.1.3.3 *The phases of the planned change model*

A planning model has been developed by Lippitt, Watson, and Westley and later modified by Kolb and Frohman (Cummings and Worley, 1993: 53). Huse (1980: 86) identifies two principles underlying this model, namely that all information must be freely and openly shared between the client and the change agent, and that information is helpful only when and if it can be directly translated into action. A seven-step process has been identified which can also be combined with Lewin's three-step model:

- Scouting

The change agent and organisation jointly explores the need for help.

- Entry

A contract is developed between the client and change agent stating the conditions of the work relationship, such as goals, roles and actions.

- Diagnosis

Specific improvement goals are clarified according to four basic elements:

- * the problem - as perceived by the client;
- * the goals of the client;
- * the resources of the client; and
- * the time and knowledge at the disposal of the change agent.

- Planning

During this stage actions are identified as well as any potential resistance to change.

- Action

The action phase consists of the implementation or deployment of actions or intervention strategies.

- Stabilisation and evaluation

During this phase the change process is stabilised and the result of the change is measured. This will result in, either further action planning, or termination of intervention.

- Termination

This indicates the end of the project, pursuing another project or leaving the system.

It is clear that this model holds many possibilities for the implementation of change. Huse (1980: 86) however, states that while the model is extensively grounded in theory and research, there is meagre emphasis on research-based measurement.

In examining the various models of change it becomes clear that some underlying similarities are a logical extension of one another.

According to Huse (1980: 92), all three approaches overlap in that they emphasise the application of behavioural science knowledge, involve the use of groups and recognise that any interaction of a consultant with a client system constitutes an intervention, which may affect the organisation as a total system. (See figure 2.2.)

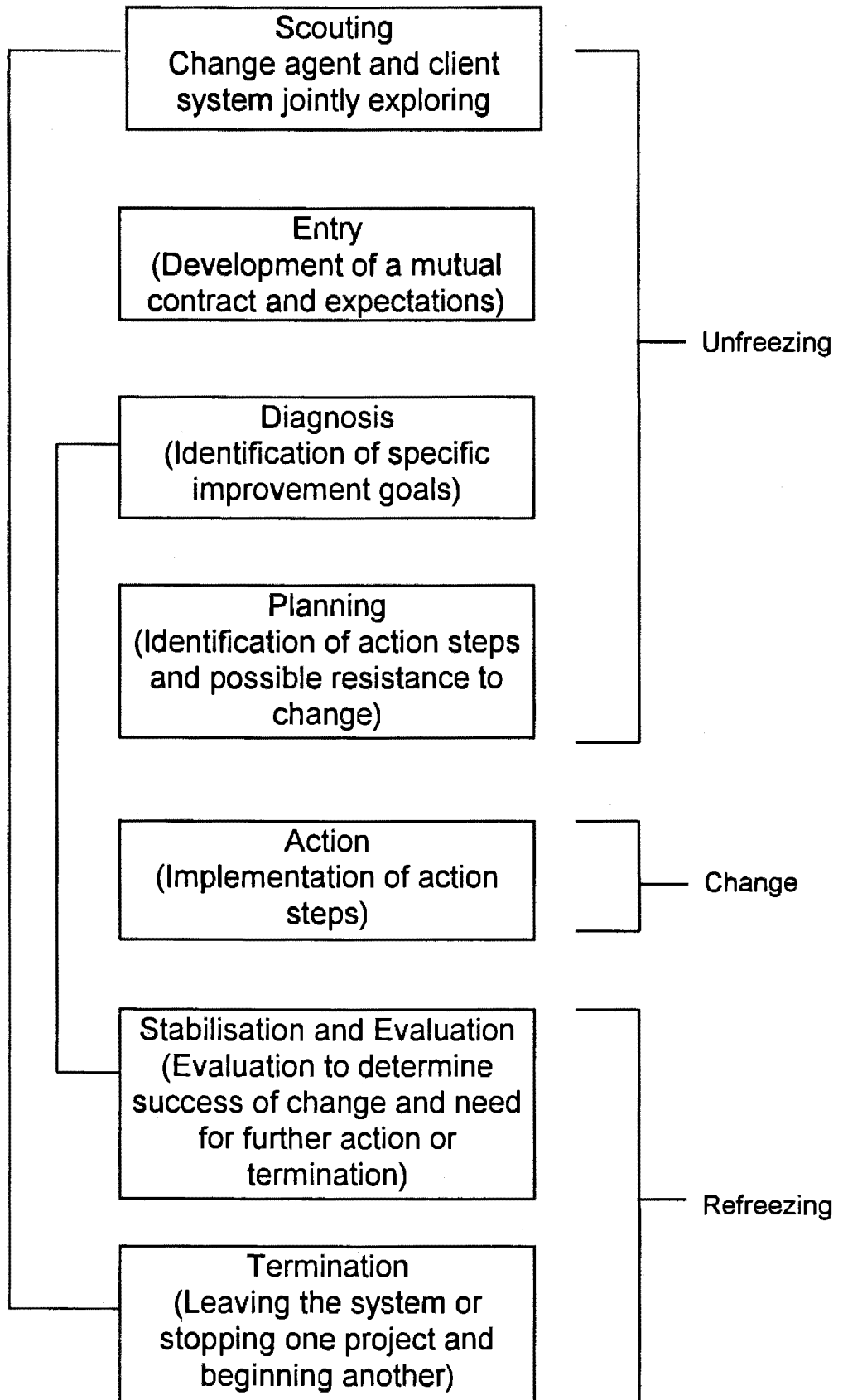


FIGURE 2.2 PLANNED CHANGE AND LEWIN'S TYPOLOGY OF CHANGE (HUSE, 1980: 87)

2.2 CHANGE MANAGEMENT IN AN ORGANISATIONAL CONTEXT

Beckhard and Harris (1987: 29) identify a somewhat simplistic process consisting of three distinct steps or conditions in any major organisational change, namely:

- the future state - where the leadership wants the organisation to get to;
- the present state - where the organisation currently is; and
- the transition state - the set of conditions and activities required to move from the present to the future. (See figure 2.3.)

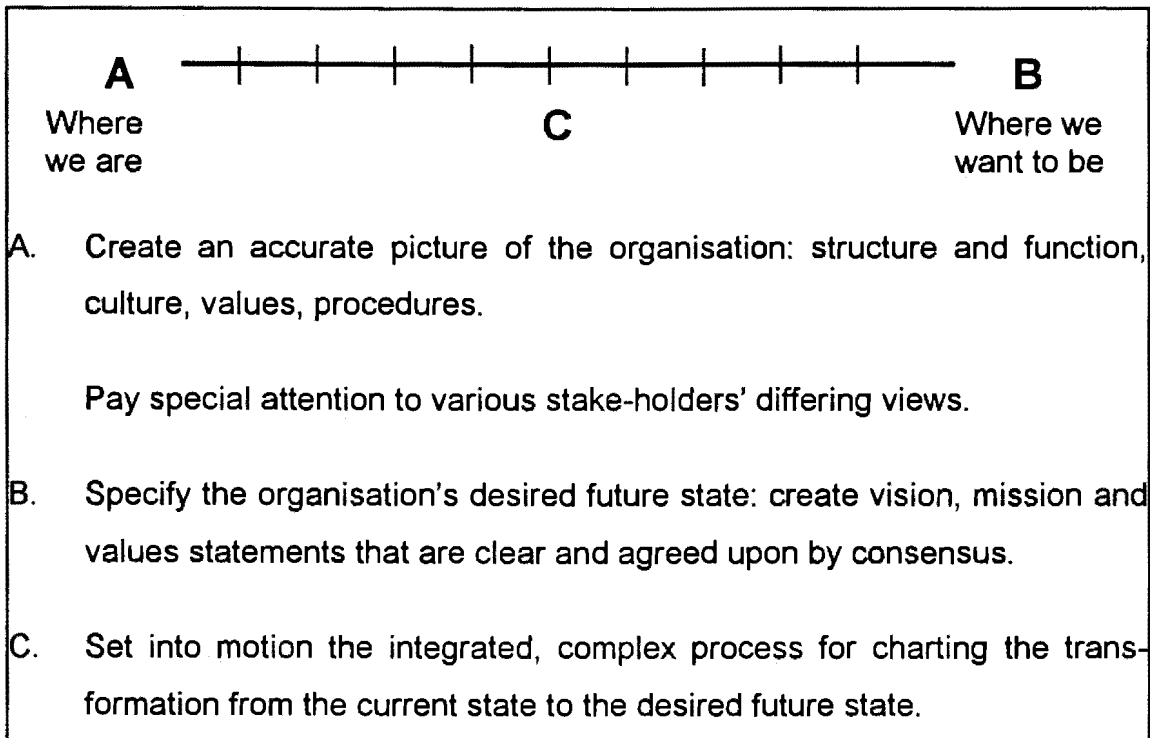


FIGURE 2.3 FRAMEWORK FOR THE ORGANISATIONAL TRANSFORMATIONAL PROCESS (HARSHMANN & PHILLIPS, 1994: 29)

The above-mentioned three phases help to clarify the work to be done in managing major change. This contributes to defining the future state, assessing the present and managing the transition.

- Defining the future state entails formulation of a vision, mission and values that are clear and agreed upon by consensus (Harshman & Phillips, 1994: 28).
- Assessing the present state creates an accurate picture of the organisational structure and function, culture, values and procedures. Special attention to stakeholders' views are important here (Harshman & Phillips, 1994: 28).
- Managing the transition entails mobilisation of an integrated, complex process of transformation from the current state to the desired future state (Harshman & Phillips, 1994: 28).

Change management however, is not a neat, sequential process. The tasks of defining the future state and assessing the present state demand simultaneous attention.

The above framework will be followed in the subsequential description of the planning, implementation and management of the change process.

2.2.1 The planning phase

Burke (1987: 73) states that the planning phase is usually followed by organisational diagnosis and feedback. Once the diagnosis is understood and deemed accurate, action steps can be planned. The purpose of the planning phase is, firstly, to generate steps for addressing the problems identified in the diagnosis and, secondly, to decide on the order of steps to be taken.

Usually a representative planning committee is established with the purpose to allow organisational leaders to learn about the change process and to commit themselves to large scale transformation and change (Harshman & Phillips, 1994: 29).

Once the planning committee has committed itself to the change process and appointed the organisational steering committee, the planning committee should be dissolved.

It is important to understand the conditions which drive change in an organisation, such as the level of commitment, the pace of the change process and the degree of persistence when implementation problems are experienced. It is therefore, important to determine why change needs to occur. The diagnostic process provides this understanding of the organisation from multiple perspectives through interviews, surveys, observation and existing data. Diagnosis forms the foundation for later discussion of issues and strategic planning of the change process. It should be viewed as the first stage of a long-term change intervention (Harshman & Phillips, 1994: 31). The steering committee should play a vital role in the above process in terms of planning the diagnosis and interpreting the results. An organisation does not always have the time, resources or need to conduct an in-depth diagnosis. Alternatives can then be considered, such as focus groups, a diagnostic task force and large-scale data collection (Harshman & Phillips, 1994: 31).

2.2.1.1 Defining the desired organisation

Another important aspect of the planning phase is to establish a foundation for designing the organisation of the future. The vision, mission and values must therefore, clearly be established (Harshman & Phillips, 1994: 39). **The vision** is the perception of what the organisation's reason *dé être* will be and how it will operate. **The mission** is the purpose of the organisation, which reflects its function in broader society. **The values** are the image, which the organisation represents and the principles that drive its operations. Lynch and Kordis (1989: 155) postulates that the vision must be clear, specific, comprehensive, detailed stated in the "future perfect" sense, stated pro-actively and powerful enough to elicit the commitment of everyone involved. In conclusion, a working vision needs constant testing, refining and, sometimes, replacement. Events such as the shift of market conditions and the

organisation's performance level may trigger the need to revise the vision (Katzenbach, 1995: 100).

2.2.1.2 *Resistance to change*

Although the mission, vision and values are critical for defining the future of the organisation, the forces of resistance that stand in the way of change must also be recognised. Once these sources are assessed, they can be incorporated into the planning process (Katzenbach, 1995: 43). Lawrence (1991:77) states that the real problem is not technical change but the social and human changes that often accompany technical innovations. If not addressed appropriately, this may result in resistance to change. Such resistance may take a number of forms for example, decreased performance, conflict, industrial sabotage and strikes.

Carnall offers a simplified model consisting of five main stages to explain the emotional and psychological change people experience when subjected to external change (Carnall, 1990: 141). These are:

Stage 1: Denial

Generally there is a tendency to deny the validity of new ideas. Dramatic and traumatic change can often result in so-called paralysis.

Stage 2: Defence

The realities of change become clearer and people must face new challenges. This can lead to feelings of depression and frustration and can result in defensive behaviour.

Stage 3: Discarding

The previous stages have focused more on past events. During this stage people begin to negate past events and look forward to the future. Discarding involves

experimenting with new ideas and risks which can be ascribed to a need for growth in a new situation.

Stage 4: Adaptation

A process of adaptation emerges. Individuals begin to test the new situation and the “try out” of new behaviours, against the background of different standards and requirements for coping with change.

Stage 5: Internalisation

This is a cognitive process in which people make sense of what has happened. The new behaviour becomes part of “normal” behaviour.

People experiencing change do not “move” through these processes in an orderly fashion, simultaneously, or at the same rate. These variables depend on specific individual attributes and circumstances in which the change occurs.

According to Lawrence (1991: 79) all people potentially resist change but they all also potentially stimulate change processes. This is in contrast with the traditional belief that employees resist change while managers foster and implement change. Finally, it needs to be emphasised: that resistance to change is in itself neither good nor bad. Resistance may be soundly based or it may not. Resistance to change is, however, always an important signal calling for further inquiry by management.

2.2.1.2.1 Factors decreasing resistance to change

The following factors need to be considered when dealing with resistance to change (Huse, 1980: 120):

- Any change process needs to take into account the needs, attitudes and beliefs of the individual and his or her social role in the organisation.

- The greater the credibility of the leader, the greater the influence he or she can exert on the change process.
- By providing specific information, strong pressure for behavioural change can be established.
- Strong pressure for change can be established by stimulating the need for change.
- The level of opposition to change is reduced when those people who are to be changed and those who are to exert influence to change have a strong sense of belonging to the same group. Change, which comes from within, is much less threatening than change, which is proposed from outside the group.

2.2.1.3 Change management structure

Harshman and Phillips (1994: 49) state that when change strategies are implemented, a "parallel" change structure can be established to counteract the organisation's tendency to preserve the status quo. This structure (consisting of different committees for example, the organisational steering committee and implementation team) will be responsible for designing and managing the change process. Each committee's role and responsibilities need to be clearly defined and communicated. The inclusion of strong leaders and process managers are essential to the development of appropriate structures for the implementation and maintenance of the change process (Mayon-White, 1986: 234).

2.2.1.4 Change strategy design

Mayon-White (1986: 219) states that the strategic plan involves specifying the implications of strategies. In order to be meaningful, strategies must be communicated to, agreed upon and supported by management.

The appointed change management structures, as discussed in 2.2.1.3, p.37, should develop the change strategy by addressing the following elements: vision, strategy, communication, business processes, structures, tasks, systems, teams, people alignment, leadership and culture.

Each of the above elements can be defined and described as follows:

- Vision

According to Harshman and Phillips (1994: 41) the vision on organisation describes the desired future state or condition of the organisation in terms of its outcomes, characteristics and functioning. A vision should be clear enough to be used for decision-making and to consider how the company adds value and should focus on strategic advantages.

- Strategy

In approaching an organisational change situation, strategic choices need to be made regarding the timing of the effort, the amount of pre-planning, the involvement of others and the different approaches to be followed (Mayon-White, 1986: 169). A common mistake is to approach change in a fragmentary and incremental way that is not part of a clearly considered strategy.

- Communication

Plug *et al* (1988: 183) define communication as the transmission of information from one party to another through the use of shared symbols or signs, for example speech or gesture-language. It also constitutes the content of a message being conveyed.

This aspect is integral to any overall change management process. Ongoing communication will ensure that all stakeholders are informed, involved and

ultimately committed to the change. Another objective of the communication element is to energise people to act positively, assertively and in harmony towards the agreed objectives by making them fully functioning partners in the change process.

- Business processes

Hammer and Champy (1993: 35) defines a business process as a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer. The customer's only concern is with end results, which are created by the sum of all related activities (Hammer & Stanton, 1995: 4). A process is generally larger than a task and is therefore made up of tasks. When a company re-engineers, the first step is to define and understand the current process and then to redesign it (Hammer & Champy, 1993: 129). When reengineering business processes, jobs usually change resulting in the redefining of job profiles and subsequent training and education interventions.

- Structures

Bateman and Zeithaml (1993: 283) state that structure explains how the many parts of a complex organisation fit together. Organisation structure refers to the division of labour (specialisation), co-ordination of different jobs, authority levels and the different parts (departments) of the organisation. It is important that the organisational structure must be supportive of the planned change.

- Tasks

A task can be defined as the degree to which the job will require completion of an identifiable piece of work - a job that has a beginning and an end with a tangible outcome (Moorhead & Griffin, 1995: 165). Clarification of individual and or group roles and responsibilities need to be addressed. Job profiles also need to be revised to incorporate changes to roles and responsibilities.

- Systems

Attempts to carry out programmatic, continuing change through isolated, single efforts are likely to fail because of the effects of systems context (Kanter, Stein & Jick, 1992: 7). All systems therefore, need to be revised and if necessary, changed in order to meet the new requirements set by the change process. Human resources systems, such as reward- and remuneration systems, as well as career management, should also support the change.

- Teams

With any change effort it is often expected of organisational members to work in teams within and across discipline boundaries. Team building is one of the mechanisms that can be used to support teamwork. Team building involves a number of activities designed to improve work group performance. Performance goals and norms, group cohesion, roles and responsibilities and interpersonal relationships are initially analysed and then improved through discussion and training (Bateman & Zeithaml, 1993: 632).

- People

Employees should be prepared for the change process. Training and development interventions must be designed to equip employees with new required competencies and to improve existing ones, for example knowledge, skills and attitudes (George, 1997: 5).

Among the many training methods, the most common are lectures, discussions, experiential methods and case studies (Moorhead & Griffin, 1995: 479).

- Alignment

When considering fundamental change, an integrated and coherent approach needs to be followed in order to align the entire organisation with its environment (Beckhard & Pritchard; 1992: 57). This includes aligning all other change process, across departments, as well as policies and practices.

- Leadership

Significant effort needs to be focused on empowering leaders on all levels of the organisation to translate the vision into reality. Transformational leaders are required to generate excitement and to revitalise the organisation. Appropriate leadership interventions therefore, need to be developed and implemented (Bateman & Zeithaml, 1993: 430).

- Culture

Organisational culture is the set of important assumptions about the organisation and its goals and practices shared by members of the organisation. It is a system of shared values about what is important and about beliefs on how the organisation works. An organisation's culture provides a framework which organises and directs people's behaviour on the job (Bateman & Zeithaml, 1993: 324). It is therefore crucial that, in designing and implementing all the above-mentioned elements, the new behaviours and values should be incorporated and entrenched.

2.2.2 Implementation of change

Once the planning phase for the change strategy is completed, an implementation plan needs to be developed in which milestones, such as "who is to do what before when" are stipulated (Mayon-White, 1986: 259).

One of the crucial and fundamental elements regarding implementation of change seems to be communication (Mayon-White, 1986: 256). Two-way communication is needed throughout the implementation process in order to monitor what is actually happening, to decide how to deal with emerging problems and to determine what modifications might be needed. Employee commitment and involvement should be obtained right from the start and throughout the implementation process. This can be done through awareness sessions, training and discussion of issues and concerns on a cross-functional level (Harshman & Phillips, 1994: 99).

Sufficient resources such as money, people and time, is another core requirement for achieving the successful implementation of change. A further important step, according to Kirkpatrick (1985: 106), is continual evaluation against the plan and performance measures resulting in continual improvement. Kanter *et al* (1992: 430) state that there is often euphoria at the beginning of a change process, resulting from the excitement of being handed a change mandate, linked with the "high" of early and easy successes. This brief euphoria gives way to disillusionment when change implementors and their teams realise that the change requires hard work.

In order to convince individuals of the need for change and the advantages thereof for each individual, the change implementor should not only jolt them from their complacency, but also boost the human spirit by rewarding each success, however small.

Change implementors "make it happen" by managing the day-to-day process of change and they are particularly sensitive to organisational dynamics. They are often assigned their role and given a mandate to institute the change on behalf of change strategists. They form part of the change structure (Kanter *et al*, 1992: 378).

Successful implementation includes the prevention of problems which may emerge, but it also requires doing things that actively help to promote success (Mayon-White, 1986: 260).

Finally, the following basic tactics constitute “ten commandments” for implementing change (Kanter *et al*, 1992: 383):

- Analyse the organisation and its needs for change.
- Create a shared vision and common direction
- Separate from the past.
- Create a sense of urgency.
- Support a strong leader role.
- Line up political sponsorship.
- Craft an implementation plan.
- Develop enabling structures.
- Communicate, involve people and be honest.
- Reinforce and institutionalise change.

2.2.3 Managing change

Planning and implementation phases are followed by management of the change process. The larger and more complex the change effort, the more systematic, concentrated attention needs to be paid to the management process (Burke, 1987: 121). A temporary committee or task team meeting may not be sufficient. It may well require the efforts of a full-time person such as a project manager to manage the transition process. Committee meetings are used to review the change process and to create a future direction.

2.3 CHAPTER SUMMARY

This chapter discussed and described change management from a theoretical as well as an organisational perspective. In the theoretical discussion, specific reference was made to the different schools of thought as well as to the models of organisational change.

With regard to the organisational perspective, special emphasis was placed on the planning, implementation and management phases of change. Hereby the first aim of the literature survey, namely to define change management, has been achieved.

Herewith the first specific literature aim is accomplished namely to define change, change management and to discuss its application in organisational context.

Although change impacts various organisational factors specific emphasis will be paid to role conflict, role ambiguity and job satisfaction. Chapter three therefore, focuses on organisational roles with specific reference to role conflict, role ambiguity and job satisfaction.

CHAPTER THREE

ROLE CONFLICT, ROLE AMBIGUITY AND JOB SATISFACTION

In this chapter, the focus is on organisational roles from the humanistic paradigm (as mentioned in 1.5, p.11). Any large-scale change initiative in an organisation may impact various organisational factors, including people's roles and responsibilities. The aim of this chapter is to define and describe organisational roles and related role concepts such as role conflict, role ambiguity, job satisfaction and problems experienced with organisational roles.

3.1 DEFINITION OF ORGANISATIONAL ROLES

Sarbin (1968, in Rahim, 1986: 42) defines "role" as a term generally "used to represent behaviour expected of the occupant of a given position or status".

According to Harigopal (1995: 3) the concept of role:

- provides a comprehensive pattern for behaviour and attitudes;
- is a strategy for coping with a recurrent situation;
- can socially be identified and represents a clear entity;
- is recognisably fulfilled by individuals;
- forms a basis for identifying and placing persons in society; and
- consists of sets of activities that an individual may organise into a way of life.

Katz and Kahn (1978: 186) state that just as people play various roles, organisations also are systems of roles. Organisations are made up of many people playing certain prescribed roles. Each role has its own relationship to every other role and to the organisation as a whole. No single role defines a person's identity, however, people define who they are in terms of the roles they play.

Kahn (1964: 13) defined "role" as a set of activities associated with an office and to be performed by any person who occupies the office. Katz and Kahn (1978: 188) define "office" as a particular point in organisational space. Each office (or job) has a set of prescribed duties and tasks, the person who fills that office assumes that role.

According to Harigopal (1995: 4) the psychological definition of a role emphasises two aspects, namely:

- expectations and beliefs held by role players with regard to those behaviours which are appropriate for the occupant of a given position; and
- the self-expectations of the role incumbent in addition to how he/she enacts or conducts himself/herself in the position which is assigned to him or her. Both the situation and the person are therefore, taken into account.

In order to understand and describe the means by which organisations attain predictable and dependable behaviour, a number of role related concepts are utilised namely, role expectations, sent role, received role and role behaviour (Kahn, 1964: 13). The four factors in organisational roles make up the role episode (Kahn, 1964: 13).

3.1.1 Role expectations

Kahn (1964: 14) defines role expectations as the prescriptions and proscriptions held by members of a role set. The content of these expectations may include

preferences with respect to specific acts and personal characteristics or styles. It may deal with what the person should do, what kind of person he or she should be, what he or she should think or believe and how he or she should relate to others. Katz and Kahn (1978: 194) describe "role expectations as evaluative standards applied to the behaviour of any person who occupies a given organisational office or position".

Harigopal (1995: 7) states that "expectations refer to the obligations, privileges, rights and duties that the focal person presumes to be associated with the position that he or she occupies".

3.1.2 Sent role

The communicated expectations are referred to as a sent role. The process can be described as role sending (Harigopal, 1995: 7). The messages that are sent are not necessarily in the form of one-on-one communication. It can be as impersonal as a corporate decision about its business strategy. Role sending does not always occur strictly to communicate information. People's actions are also attempts at influencing others to conform to the expectations of the senders. Expectations are "sent" or communicated directly or indirectly to the focal person (the person who is receiving the message) (Kahn, 1964: 15).

3.1.3 Received role

Received role is the focal person's perceptions and cognitions of role sending, including the reflexive role expectations that the focal person "sends" to himself or herself (Katz & Kahn, 1978: 195). The focal person who is receiving messages about how to act in a role, interprets these messages through role receiving. It is the received role which has immediate influence on his or her behaviour and which is the immediate source of his or her motivation for role performance (Kahn, 1964: 16).

3.1.4 Role behaviour

Kahn (1964: 18) defines role behaviour as the behaviour which is system relevant and which is performed by a person who is accepted by others as a member of the system - the major focus being on behaviour in the work role.

Role behaviour is the response of the focal person to complex information and influence received (Katz & Kahn, 1978: 195).

The focal person's perceptions about the sent role will affect his or her behaviour through an attitude towards the role (Katz & Kahn, 1978: 196). If messages about the sent role are unclear, it is likely that the sent role and the received role will differ and the focal person may choose to ignore or alter those messages.

3.1.5 Role episode

As previously stated, the four factors in organisational roles (role expectations, sent role, received role and role behaviour) make up the role episode. Katz and Kahn (1978: 195) state that "the role episode is abstracted from a process that is cyclic and ongoing. The response of the focal person feeds back to each sender in ways that alter or reinforce the sender's expectations and subsequent role-sending".

In summary, people have expectations about how someone in a certain position should behave and they send messages accordingly. The person playing the role receives these messages, interprets it and behaves according to how he or she perceives the sent messages.

For an organisation to be successful, each member must understand his or her role in order to carry out his or her job responsibilities effectively and efficiently. Teamwork usually suffers when role incumbents lack a clear idea of the behavioural expectations required by a particular role. Even if these expectations are known, the role itself may change due to large-scale organisational change (Buckham,

1987: 63-65). In the remaining part of this chapter, problems with organisational roles will be addressed.

3.2 PROBLEMS WITH ORGANISATIONAL ROLES

Problems with organisational roles include role conflict and role ambiguity and how it affects the behaviour of individuals.

3.2.1. Role conflict

Rahim (1986: 41) classifies conflict in intrapersonal, interpersonal, intragroup and intergroup aspects. Role conflict as a part of intrapersonal conflict is defined as "a situation in which a person is motivated to engage in two or more mutually exclusive activities" (Murray, 1968 in Rahim, 1986: 41). This emerges as a phenomenon in which an individual experiences difficulty making a choice because he or she is pushed or pulled in opposite directions.

Katz and Kahn (1978: 204) define role conflict as the simultaneous occurrence of two or more role expectations where compliance with one would make compliance with the other more difficult.

Role conflict is perceived incompatibilities or incongruencies which occur when an organisational member is required to perform a task which does not match his or her expertise, goals, interests or values. This also occurs if there is a significant mismatch between the role that a person expects to perform and the role that is demanded of the person by the organisation (Rahim, 1986: 42). Role conflict can occur when two or more conflicting role expectations are present and the behavioural patterns it dictates are in conflict (Katz & Kahn, 1978: 204). Examples hereof is when the role sender sends mixed signals, when the role sender and the focal person's views of the focal person's role differ, or when the focal person holds conflicting roles.

Kahn (1964: 19-21) identifies four types of role conflict:

- Intrasender conflict

This type of conflict occurs when a role sender requires a role receiver (the focal person) to perform contradictory or inconsistent roles. A role sender may for example, request the role receiver to complete a task without the necessary training.

- Intersender conflict

The role receiver will experience conflict if the role behaviour demanded by one role sender is in conflict with the role behaviour demanded by another. A supervisor who for example receive instructions from his or her line manager may be inconsistent with the expectations of the workers under his/her supervision.

- Interrole conflict

This type of conflict occurs when an individual occupies two or more roles of which the expectations are inconsistent. A line manager who for example must strive to "do more with less", sometimes do so at the cost of job losses.

- Intra-role (person-role) conflict

This type of role conflict occurs when an employee is required to violate moral or ethical values. This occurs when a manager is for example, required to apply price-fixing conspiracies which is incongruent with ethical standards.

Another complex form of conflict, called "role overload", results from the above four types of role conflict. This occurs when an organisational member is required to perform a number of legitimate and compatible roles sent by different role senders.

According to Kahn (1964: 20-21) these types of role conflict have one major characteristic in common. Members of a role set exert role pressures to change the behaviour of the focal person, while pressures to change represent new and additional forces with which he or she must cope.

3.2.1.1 *Sources of role conflict*

According to Rahim (1986: 49) some of the major factors which affect role conflict are the following:

- Misalignment and goal incongruence

If a person is assigned to do a task for which he or she does not have the appropriate expertise, aptitude and commitment, then the person may experience undesirable frustration.

- Inappropriate demand on capacity

If a person cannot properly satisfy all the demands of his or her position (even by working to his or her maximum capacity), the demands tend to overload the situation.

- Organisation structure

A high degree of role conflict is generated by organisations through conflicting goals, policies and decisions. Multiple lines of authority can also be associated with role conflict and loss of organisational effectiveness.

Low role conflict is associated with organisational practices such as personal development, participation and communication (Rizzo, House and Lirtzman, 1970: 161).

- **Supervisory style**

This may cause major role conflict if the appropriate leadership style and practices are not instilled in supervisory personnel.

3.2.1.2 Consequences of role conflict

Role conflict has been found to be positively related to job dissatisfaction, tension and anxiety, propensity to take leave, lack of confidence in the organisation, and inability to influence decision-making (Rahim, 1986: 56).

Kahn (1964: 380) concludes that “the emotional costs” of role conflict for the focal person include low job satisfaction, low confidence in the organisation and a high degree of job-related tension. A very frequent behavioural response to role conflict is withdrawal or avoidance of those who are seen as creating the conflict (Kahn, 1964: 380).

The management of role conflict involves diagnosis to establish if it is dysfunctional and interventions such as role analysis and job design (Rahim, 1986: 56).

3.2.2 Role ambiguity

Role ambiguity can occur when a person is unsure about the identity of the role senders, the purpose of fulfilling others’ role expectations, or how his or her role behaviour will be evaluated (Katz and Kahn, 1978: 210).

According to Rahim (1986: 45) this concept is also closely related to role conflict. It refers to the lack of clarity in understanding what expectations or prescriptions exist for a given role. An employee requires information about the expectations for his or her role, the means of achieving his or her role and the consequences of performing his or her role. When the information either does not exist or is not properly

communicated, role ambiguity occurs (Kahn, 1964: 23). One should also realise that, under some conditions, the required information just does not exist. For example, who can accurately predict when market forces might next require major changes in products, services or technology? Research has shown that individuals differ in the degree to which the ambiguity experienced is a source of strain and anxiety and that some individuals develop unusually high levels of tolerance for ambiguity (Kahn, 1964: 24). When innovation is an objective, people may be more willing to accept ambiguity, because creativity is encouraged (Pondy, Boland, Thomas, 1988: 119).

It should also be borne in mind that for many purposes, information about the interpersonal climate and about the appraisal of one's performance may be as important as knowing the specific content of the job (Kahn, 1964: 25). The above is especially important to consider when implementing large scale organisational change.

Both role conflict and role ambiguity have been linked to low job satisfaction, high levels of stress, decreased performance and more specifically to the ambiguity experience, low self-confidence and a sense of futility (Kahn, 1964: 94).

"Among its probable sources of ambiguity are the growing complexity of an organisations' unclear expectations, the rate of organisational change and the persuasiveness of certain managerial practices that deliberately foster ambiguity (Kahn, 1964: 94)". "The rate of organisational change may manifest itself as increased organisational size, restructured organisational hierarchy and turnover, transfer or reassignment of personnel (McAlister, 1979: 48)". Each of these forms of change creates an information need and evicts a coping behaviour to acquire that needed information.

Like role conflict, role ambiguity is costly to the person and to the organisation in which he or she works. The importance of achieving role clarity and individual role satisfaction, therefore, becomes very clear (Kahn, 1964: 72).

"Managers seeking to improve their mastery of complex, changing organisations must learn the necessity and usefulness of ambiguity and learn to manage it effectively. Therefore, managers in changing, situations are going to be on a constant learning curve as they go along (Pondy *et al*, 1988: 15)".

"By its very nature, change produces ambiguity, until at least an end state is achieved, although perhaps temporary. If change in organisations is becoming the rule rather than the exception, it should be clear that the ability to work in and with ambiguous situations and environments is one of the skills needed to manage change effectively" (Burke & Church, 1992: 310).

3.2.3 A model of role conflict and ambiguity

Figure 3.1 portrays a modified version of Kahn's model of role conflict and ambiguity and can be used to explain the notion of role episode and the factors involved in adjustment to role conflict and ambiguity (Rahim, 1986: 44).

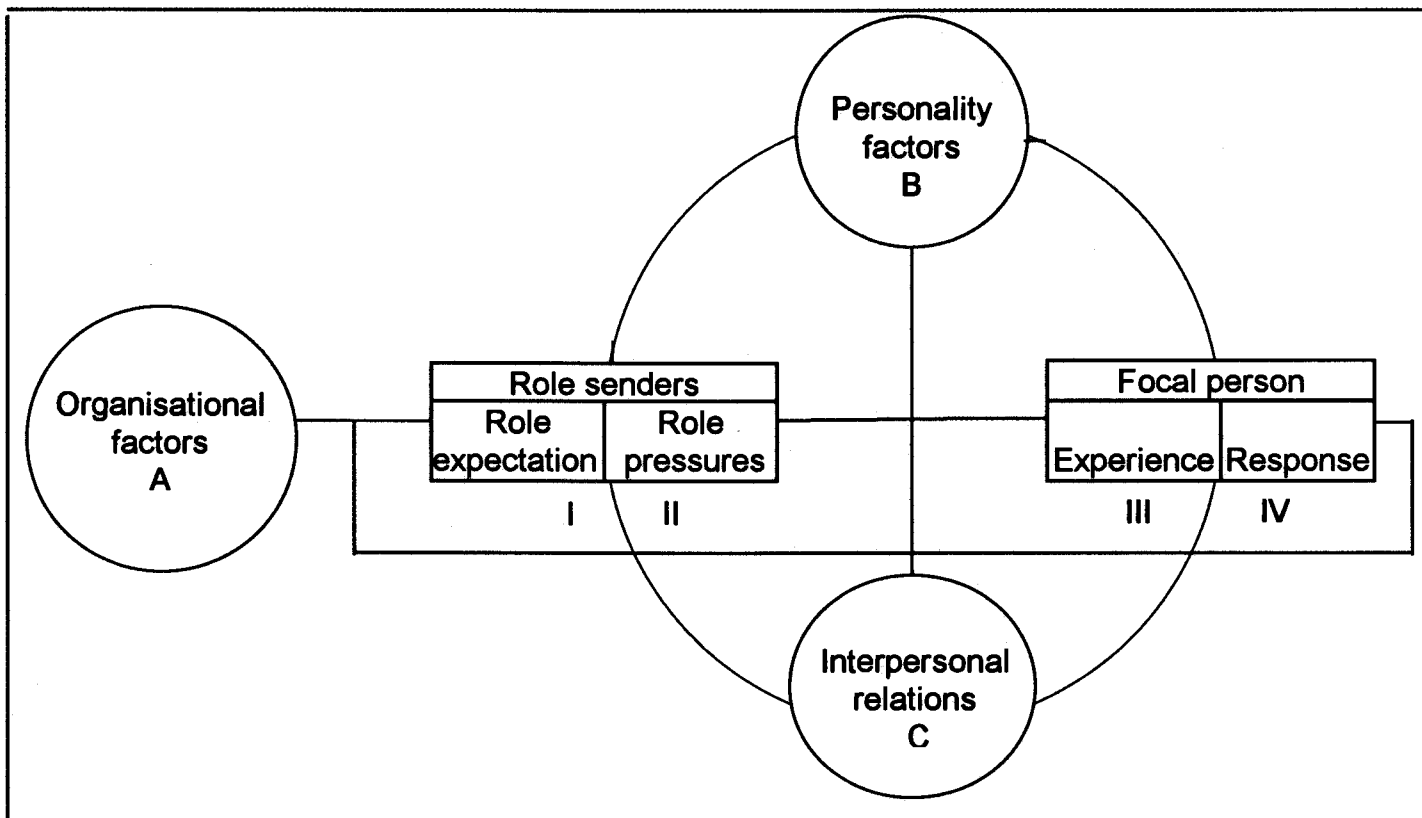


FIGURE 3.1 A MODEL OF ROLE CONFLICT AND AMBIGUITY (RAHIM, 1986: 44)

The model illustrates role conflict through a series of events or a role episode. Two boxes, headed "role senders" and "focal person", can be distinguished. The role sender communicates his or her expectations (Section I) or influence (Section II) to the focal person to reinforce or modify his or her behaviour. The box on the right represents the perception of these communications by the focal person (Section III) and his or her response to the influence attempt (Section IV).

The role episode begins with the role sender's expectations, for example the perceptions and evaluations of the focal person's role behaviour. He or she then moves into the next phase (for example sent role), which takes the form of role pressure communicated to the focal person. The focal person receives the sent role and begins an interpretation process. Role conflict occurs at this stage if the sent role is different from the role that is expected by the focal person (Rahim, 1986: 44).

3.2.4 Job satisfaction

McAlister (1979: 2) defines the term "job satisfaction" as positive, affective attitudes or orientations on the part of individuals toward their jobs. In essence it is an individual's feeling of psychological contentedness towards his or her work. In contrast to motivation, which refers to work behaviour, job satisfaction is largely a matter of the individual's affective experience about the work context (Watkins, Cilliers and Coster, 1991: 40).

According to McAlister (1979: 14) contemporary interest in "job satisfaction has three origins, namely:

- The increased concern for improvement of organisational effectiveness.
- The concern for the individual's quality of life.
- The desire to have organisational rewards apportioned on the basis of performance.

The first reason is based upon evidence that present satisfaction levels influence future levels of turnover and absenteeism. Turnover and absenteeism directly affects the organisation's ability to achieve its goals and objectives. The second reason is based upon the fact that an individual's overall "quality of life" cannot be divorced from his experiences on the job. Thirdly, if satisfaction is received when certain needs or desires are fulfilled, then, in a work context, job satisfaction is experienced when the individual receives rewards from his or her job.

A range of studies in Dexter (1981: 155) confirms that there are groups of characteristics of work that are important: some of these relate to intrinsic factors of the work itself for example, the variety, identity, and content of tasks. Others for example, safety, remuneration, promotion, recognition and supervision tend to relate the environment in which tasks are performed.

In view of the voluminous research that has already been done in the area of job satisfaction this concept was not fully described here. (See for example, Wanous and Lawler 1972, Locke 1976 and Maitland & Hofmeyr 1984.)

3.2.5 The relationship between role conflict, role ambiguity and job satisfaction

According to Rediger (1983:11), job motivators among other determinants (for example the work itself) correlates with job satisfaction. This implies that the degree of job satisfaction will differ and that these may be accounted for by role conflict or role ambiguity due to large-scale change.

When considering the association between role ambiguity and job satisfaction, a number of researchers focus on the effects of role ambiguity on perceived job satisfaction. According to McAlister (1979: 65) the results of these studies consistently support the existence of a statistically significant negative correlation between ambiguity and job satisfaction. Individuals perceiving high levels of ambiguity receive little satisfaction from their jobs, while conversely, persons perceiving low levels of ambiguity tend to indicate high job satisfaction levels.

The degree of job satisfaction has also been found to be higher for jobs with minimal role conflict and lower for occupations with a high role conflict content.

3.3 CHAPTER SUMMARY

In this chapter role conflict, role ambiguity and job satisfaction as well as problems with organisational roles has been identified and described. Hereby the second aim of the literature survey, namely to define organisational roles, has been achieved.

Herewith the second specific literature aim is accomplished, namely to define role conflict, role ambiguity, job satisfaction and the relationship between them as well as to discuss its application in organisational context.

Next the integration of change as one variable and role conflict, role ambiguity and job satisfaction as another variable, will be presented.

INTEGRATION

Change is ever-present and influences role conflict, role ambiguity and job satisfaction significantly.

When considering fundamental change, an integrated and coherent approach needs to be followed in order to determine the impact of the change on role conflict, role ambiguity and job satisfaction. This approach must be applied continuously throughout the planning, implementation and management phases of change.

One of the crucial and fundamental elements regarding the influence of change on role conflict, role ambiguity and job satisfaction seems to be communication. Two-way communication helps to monitor what is actually happening, to decide how to deal with emerging problems and to determine what modifications might be needed.

From a change management perspective the following elements must also be addressed in order to reduce role conflict, role ambiguity and job satisfaction:

- Training and development interventions to equip employees with new required skills;
- Effective job design and organisation structures;
- Continual evaluation against the plan and performance measures;
- Recognition of successes, however small.

Herewith the third specific literature aim is accomplished namely to determine the theoretical relationship between change management as one variable and role conflict, role ambiguity and job satisfaction as another variable.

Chapter four discusses the empirical study, starting with the determination and description of the sample population and ending with the formulation of hypotheses.

CHAPTER FOUR

EMPIRICAL STUDY

Chapter four presents the empirical investigation. Firstly the sample is presented and then the focus is on the measurement instruments, data collection, data processing and hypothesis formulation.

4.1 SAMPLE

With 320 employees, working in four different maintenance depots (pilot sites) in a transport organisation as target group, a randomly selected sample of 116 was selected, meaning those who voluntarily attended the focus group sessions. These employees are responsible for the execution of the maintenance plan according to set objectives.

The employees were invited to attend focus group meetings and they were requested to complete questionnaires referred to in chapter four (page 60-66). The composition of the groups is as follows (See Table 4.1):

TABLE 4.1: DESCRIPTIVE STATISTICS OF THE SAMPLE

GENDER	Frequency
Male	116
Female	0
AGE	Frequency
20-24	5
25-29	22
30-34	11
35-39	35
40-44	20
45-49	14
50-54	8
55-60	1
JOB LEVEL	Frequency
Depot Managers/Technical Managers	3
Planning Control Office (PCO)	6
Production Managers	2
Supervisors	14
Artisans	74
Trade Hands	17
PILOT SITE	Frequency
Koedoespoort	60
Pyramid South	26
Carbon Quay	22
Salvokop	8
YEARS OF EMPLOYMENT	Frequency
1-5	4
6-10	25
11-15	19
16-20	36
21-25	12
26-30	13
More than 30 years	7

4.2 MEASUREMENT INSTRUMENTS

For optimal measurement, various measurement instruments were considered in terms of their applicability to the relevant models and theories of the research, as well as their validity and reliability.

No suitable measuring instrument existed to measure change management therefore, an instrument (Change Management Measure) was developed for the purpose of this study.

The following instruments were chosen in this research method to measure role conflict, role ambiguity and job satisfaction:

- Role Conflict Measurement Scale
- Role Ambiguity Measurement Scale
- Job Satisfaction Measurement Scale

4.2.1 The Change Management Measure

In this section, the focus is on the development, rationale, description, administration, interpretation, validity and reliability and motivation of the Change Management Measure.

4.2.1.1 Development of the Change Management Measure

The elements included in the Change Management Measure were derived from of an in-depth literature review of change management. As such, the measure represents ideas from Harshman and Philips (1994), Mayon-White (1986), Plug *et al* (1988), Hammer and Champy (1993), Bateman and Zeithaml (1993), Moorhead and Griffin (1995), Beckhard and Pritchard (1992).

Items were derived from the above authors' work and a final questionnaire was accordingly developed. (See Appendix A, part B.)

4.2.1.2 Rationale of the Change Management Measure

Items in the Change Management Measure were designed to determine and reflect how effectively the change management process supported the implementation of the "MONARCS" project referred to in paragraph 1.1, page 3.

4.2.1.3 Description of the Change Management Measure

The Change Management Measure is a self-report instrument directed at assessing the effectiveness of the change management process.

The Change Management Measure consists of 11 items that indicate the extent to which the respondents evaluate items on how they had experienced the change process. The scale used for measuring the effectiveness of change management consists of a three-point scale (yes = 2, no = 0, unsure = 1).

A high score indicates that the respondent regards the change management process as effective and the opposite holds true for low scores.

4.2.1.4 Administration of the Change Management Measure

The Change Management Measure is in essence a self-administering instrument. The items are printed on the answer sheet accompanied by a three-point scale which the respondent uses to record his or her answers. The respondent is instructed to complete biographical data in the space provided. Respondents are requested to read the directions without time restriction. The respondent is encouraged not to omit any answers. Since the Change Management Measure is for the most part self-administering, it may be completed by individuals during group sessions or separately. For the purpose of this study, group sessions were conducted during which the instrument was administered.

A computer programme is used to capture the responses of each answer sheet.

4.2.1.5 Interpretation of the Change Management Measure

The total score of the Change Management Measure reflects the effectiveness of the change management process. A high score on the Change Management Measure indicates a strong degree of positive impact and a low score indicates a low impact.

4.2.1.6 Validity and reliability of the Change Management Measure

A specific change management instrument was designed, therefore validity and reliability was non-existent. Validity and reliability are discussed in chapter five (See 5.1.1.1).

4.2.1.7 Motivation of the Change Management Measure

The operational definition of the above instrument relates directly to the literature as discussed in chapter two. Validity and reliability are acceptable as determined in chapter five (See Table 5.1).

4.2.2 Role Conflict and Role Ambiguity Measurement Scales

In this section, the focus is on the development, rationale, description, administration, interpretation, validity and reliability and motivation of the Role Conflict and Role Ambiguity Measurement Scales.

4.2.2.1 Development of the Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale

The Role Conflict Measurement Scale was developed to provide a standardised instrument for the measurement of incompatibility of demands (Rizzo *et al*,

1970: 155). The Role Ambiguity Measurement Scale was developed to provide a standardised instrument for the measurement of (1) the predictability of the outcomes or responses of behaviour and (2) the existence or clarity of behavioural requirements (Rizzo *et al*, 1970: 155).

The initial questionnaire was developed for use as part of a broader survey to identify management development needs and barriers for the effective implementation of a planned management development programme in a large manufacturing company (Rizzo *et al*, 1970: 150).

An initial pool of 30 items was developed and administered to 290 managerial and technical employees, 14 of which dealt with role ambiguity and 15 with role conflict. (Rizzo *et al*, 1970: 155). Factor analysis and item analyses were conducted as well to determine its reliability and validity of the measure. The findings proved to be statistically significant in both instances.

4.2.2.2 Rationale of the Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale

Drawing from role theory and from the prescription in classical organisational theory that formal positions in a structure should each have clear task requirements, the authors set out to operationalize two features of role incumbency namely, the degree of ambiguity and the degree of conflict (Rizzo *et al*, 1970: 150-154). Items in both the Role Conflict Measurement Scale and Role Ambiguity Measurement Scale were designed to reflect the degree to which conflict and ambiguity existed. Items in both measures are positively as well as negatively stated.

4.2.2.3 Description and scales of the Role Conflict Measurement and the Role Ambiguity Measurement

The Role Conflict Measurement Scale consists of 15 items and the Role Ambiguity Measurement Scale consists of 14 items reflecting on specific conditions which may or may not result in role conflict or role ambiguity.

In responding to the Role Conflict Measurement Scale and Role Ambiguity Measurement Scale, the respondent is asked to indicate the degree to which the condition exists on a seven-point scale ranging from “disagree strongly” to “agree strongly”.

4.2.2.4 Administration of the Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale

The Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale are in essence self-administered. The items are printed on the answer sheet, which the respondent uses to record his or her answers. The respondent is asked to read the directions and use his or her own judgement in choosing the most appropriate response. The respondent is also encouraged not to omit any answers. Since the Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale are for the most part self-administered, it may be completed in group sessions or individually.

4.2.2.5 Interpretation of the Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale

A high score on the Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale indicates a strong degree of role ambiguity and role conflict.

4.2.2.6 Validity and reliability of the Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale

The construct validity was determined by means of Principal Components Analysis with Varimax rotation. Different studies have been conducted to determine the reliability of both measures.

4.2.2.7 *Motivation of the Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale*

The operational definitions of the above instruments relate directly to the literature as discussed in chapter three. Validity and reliability are acceptable as determined in chapter five (See Tables 5.2 and 5.3).

4.2.3 The Job Satisfaction Measure

In this section, the focus is on the development, rationale, description, administration, interpretation, validity and reliability and motivation of the Job Satisfaction Measure.

4.2.3.1 *Development of the Job Satisfaction Measure*

The Job Satisfaction Measure was constructed to develop an index of job satisfaction by a combination of Thurstone and Likert scaling methods (Brayfield & Rothe; 1951: 311). The construction of this scale was made a class project in Personnel Psychology for members of an Army specialised training programme in personnel psychology at the University of Minnesota in the summer and fall of 1943 (Brayfield & Rothe, 1951: 308). Seventy-seven men co-operated in the development. The class was given instructions for the construction of items. 1075 Statements were developed by the class of which 246 remained after editing. It was sorted into sets and distributed to the judges. Final factor analysis led to 18 items.

4.2.3.2 *Rationale of the Job Satisfaction Measure*

The Job Satisfaction Measure is used to assess the individual's attitude toward his or her work. A high total score represents the "satisfied" end-point and a low total score the "dissatisfied" end-point of the scale (Brayfield & Rothe, 1951: 308).

4.2.3.3 *Description and scales of the Job Satisfaction Measure*

The Job Satisfaction Measure is a self-reporting instrument used for assessing an individual's attitudes toward his or her work using an index of job satisfaction (Brayfield & Rothe, 1951: 311).

The Job Satisfaction Measure consists of 18 items rated on a seven-point scale, ranging from "disagree" to "agree". It indicates the extent to which the respondents evaluate the item as characteristic of themselves in terms of their attitudes towards their work.

The Job Satisfaction Measure consists of 18 items about jobs. Respondents are asked to describe how they feel about their present jobs by using a seven-point scale. The items were selected so that the "satisfied" end of the scale is indicated by "agree strongly" and the "dissatisfied" end by "disagree strongly".

4.2.3.4 *Administration of the Job Satisfaction Measure*

The Job Satisfaction Measure is essentially self-administered. The items are printed on the answer sheet that the respondent uses to record answers. The respondent is instructed to read the directions. There is no time limit for the questionnaire. The respondent is encouraged not to omit any answers. Since the questionnaire is for the most part self-administered, it may be completed in group sessions or individually.

4.2.3.5 *Interpretation of the Job Satisfaction Measure*

A high total score represents the satisfied end of the scale and a low total score represents the dissatisfied end of the scale.

4.2.3.6 *Validity and reliability of the Job Satisfaction Measure*

Evidence for the validity of the Job Satisfaction Measure rests upon the nature of the items, the method of construction and its differentiating power when applied to two groups which could be assumed to differ in job satisfaction. Empirical studies support the reliability of the Job Satisfaction Measure.

4.2.3.7 *Motivation of the Job Satisfaction Measure*

The operational definition of the above instrument relates directly to the literature as discussed in chapter three. Validity and reliability are acceptable as determined in chapter five (See Table 5.4).

4.3 **DATA COLLECTION**

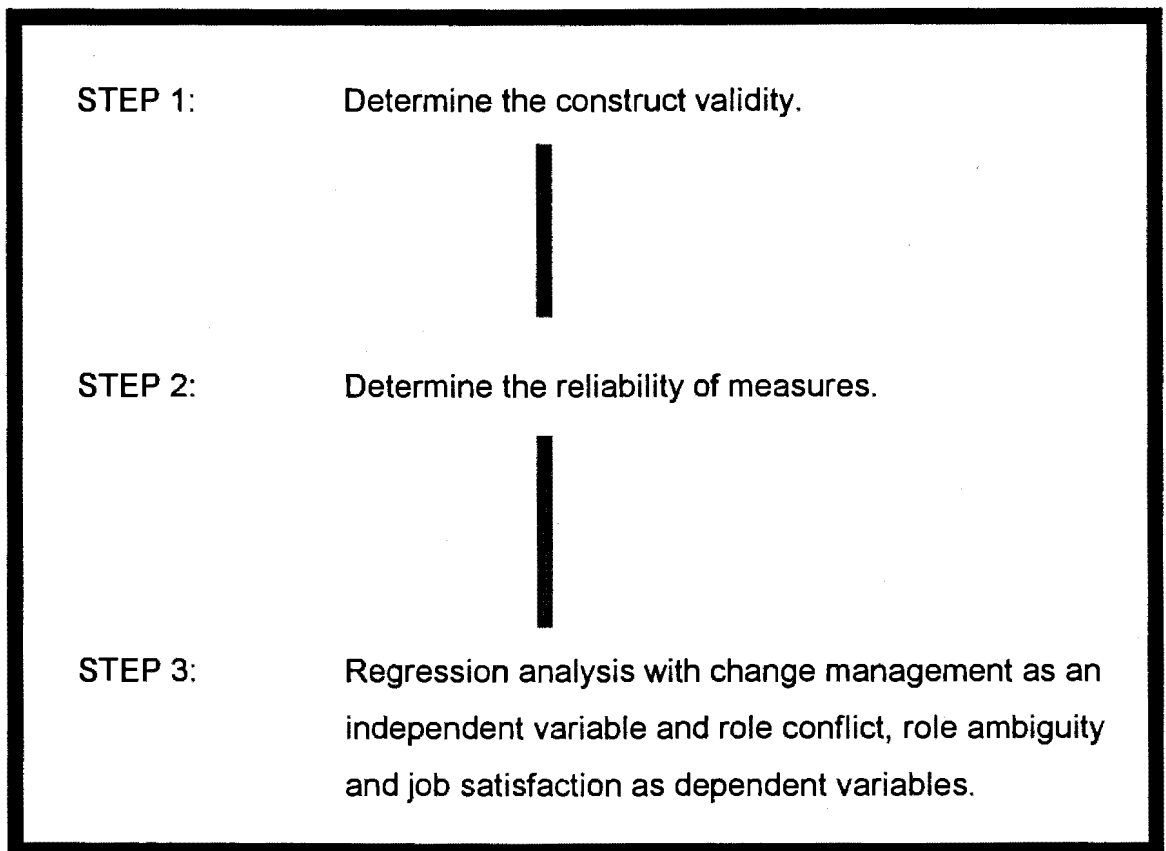
According to Mouton and Marais (1990:75) data collection step, which is one of the research design, poses a great challenge to the social science researcher because of the rational, historic and normative characteristics of human beings. The critical consideration of validity concerning the process of data collection, is that of reliability. Mouton and Marais (1990:79) require that the application of a valid measuring instrument to different groups under different sets of circumstances leads to the same observations.

To gather the data, the following procedure was used: a cover letter was drawn up, indicating the aim of the research, the confidentiality of responses and instructions for completion. The cover letter, together with the questionnaire context, the biographical data section and the four questionnaires were compiled into one document. The above questionnaires were completed during group sessions. 116 Employees (N = 116) of the four pilot sites responded by attending the group sessions and completing the questionnaires. 10 Group sessions were conducted which the author facilitated. A computer programme was used to capture the responses of each answer sheet.

4.4 DATA PROCESSING

The SAS programme was used for statistical analysis of the research data. Various statistical methods were utilised in this study to test the hypotheses outlined in section 4.5 of this chapter.

TABLE 4.2: PROCESS: STATISTICAL ANALYSIS



The above process can be described as follows:

Step 1: Determine the construct validity

Validity refers to the extent to which the instrument measures what it is supposed to measure: Construct validity specifically refers to the association of the measurement with specific theoretical constructs (Sommer & Sommer, 1991: 214). Construct validity measurements were derived from the Eigen values.

Step 2: Determine the reliability of measures

Consistency in measurement is known as reliability (Sommer & Sommer, 1991: 159). The Cronbach alpha coefficient method was also employed to measure the reliability of the instruments.

Step 3: Regression analysis

Regression analysis enables one to predict behaviour as accurately as possible on the basis of established relationships between one variable and another (Gehring, 1978: 367). Furthermore, if there is a significant correlation between two variables, it is meaningful to predict the magnitude of one variable on the basis of the known relationship and known values of the other variable. A Regression line is used for predicting Y from X (Gehring, 1978: 390). Linear regression was employed to conduct the above analysis.

4.5 HYPOTHESES FORMULATION

In order to solve the empirical problem and in accordance with the empirical aim, the following hypotheses are formulated.

- H0: Change management has no significant influence on role conflict, role ambiguity and job satisfaction.
- H1: Change management has a significant impact on role conflict.
- H2: Change management has a significant impact on role ambiguity.
- H3: Change management has a significant impact on job satisfaction.

4.6 CHAPTER SUMMARY

This chapter discussed the empirical investigation. The sample population's determination and description, the measurement instruments, data collection, data processing and the formulated hypotheses were described.

Chapter five discusses the results of the empirical study.

CHAPTER FIVE

RESULTS

In this chapter the results are reported and interpreted with the aim of integrating the results.

5.1 RESULTS REFERRING TO MEASURING INSTRUMENTS

5.1.1 Change Management Measure

In this section the focus is on the validity, reliability and factor analysis of the Change Management Measure.

5.1.1.1 *Validity, reliability and factor analysis of the Change Management Measure*

According to Sommer and Sommer (1991: 214) construct validity refers to the relationship of the measurement with specific theoretical constructs.

No validity measurements exist due to the fact that a new Change Management Measurement had to be developed. The construct validity was therefore determined by means of Principal Components Analysis with Varimax rotation. One meaningful factor was interpreted which yielded the following results (See Table 4.4).

A Cronbach alpha coefficient of 0,75 was determined for reliability of the Change Management Measure.

TABLE 5.1 FACTOR ANALYSIS OF CHANGE MANAGEMENT MEASURE WITH VARIMAX ROTATION

Item number	Factor Loading	h^2
11	0,747	0,558
8	0,708	0,501
7	0,677	0,458
10	0,669	0,447
4	0,666	0,443
3	0,639	0,408
5	0,617	0,380
1	0,608	0,369
2	0,527	0,277
6	0,496	0,246
9	0,371	0,137
Total Variance		4,225

It is evident then that all items loaded sufficiently high on change management effectiveness. Thus the results of the Change Management Measure can therefore be used effectively in this research.

5.1.2 Role Conflict and Role Ambiguity Measurement Scales

In this section the focus is on the validity, reliability and factor analysis of the Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale.

5.1.2.1 Validity and factor analysis of the Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale

The construct validity was determined by means of Principal Components Analysis with Varimax rotation. One meaningful factor was interpreted which yielded the following results (See Tables 5.2 and 5.3)

TABLE 5.2 FACTOR ANALYSIS OF ROLE CONFLICT MEASUREMENT SCALE WITH VARIMAX ROTATION

Item number	Factor Loading	h^2
1	0,678	0,459
5	0,666	0,443
12	0,646	0,417
9	0,641	0,410
8	0,605	0,366
7	0,560	0,313
2	0,531	0,281
11	0,508	0,258
15	0,503	0,201
10	0,186	0,034
14	0,177	0,030
13	0,172	0,029
3	0,723	0,522
6	01,38	0,019
4	0,321	0,103
Total Variance		3,685

Items 10, 14 and 13 yielded factor scores smaller than 0,3 (which is generally viewed as a criterion for item selection) and were therefore omitted from further analysis.

TABLE 5.3 FACTOR ANALYSIS OF ROLE AMBIGUITY MEASUREMENT SCALE WITH VARIMAX ROTATION

Item number	Factor Load	h^2
5	0,749	0,561
6	0,657	0,431
11	0,633	0,400
13	0,590	0,348
7	0,589	0,346
3	0,573	0,328
14	0,569	0,323
12	0,501	0,251
9	0,365	0,133
10	0,351	0,123
2	0,301	0,090
8	0,148	0,021
1	0,140	0,019
4	0,250	0,062
Total Variance		3,381

Items 8, 1 and 4 yielded factor scores smaller than 0,3 (which is generally viewed as a criterion for item selection) and were therefore omitted from further analysis.

5.1.2.2 *Reliability and factor analysis of the Role Conflict Measurement Scale and the Role Ambiguity Measurement Scale*

Different studies have been conducted to determine the reliability of both measures. Reliability coefficients for both measures were reported around 0,8 in different samples (Rizzo *et al*, 1970: 158).

Acceptable Cronbach alpha coefficients of 0,6 and 0,7 were measured for role conflict and role ambiguity scales (respectively).

Thus the results of the Role Conflict and Role Ambiguity Measurement Scales can therefore be used effectively in this research.

5.1.3 The Job Satisfaction Measure

In this section the focus is on the validity, reliability and factor analysis of the Job Satisfaction Measure.

5.1.3.1 Validity, reliability and factor analysis of the Job Satisfaction Measure

Empirical studies support a reliability coefficient of 0,87 in terms of the Spearman-Brown formula (Brayfield & Rothe, 1951: 310). The Cronbach alpha coefficient was also applied in this regard resulting in a value of 0,87 which supports the above. The above value indicates that the measure is highly reliable.

Evidence for the validity of the Job Satisfaction Measure rests upon the nature of the items, the method of construction and its differentiating power when applied to two groups which could be assumed to differ in job satisfaction. Scores on this correlate highly with scores on the Hoppock blank in the sample studied (Brayfield & Rothe, 1951: 311).

The construct validity was determined by means of Principal Components Analysis with Varimax rotation. One meaningful factor was interpreted which yielded the following results (See Table 5.4).

TABLE 5.4 FACTOR ANALYSIS OF JOB SATISFACTION MEASUREMENT SCALE WITH VARIMAX ROTATION

Item number	Factor Load	h^2
17	0,801	0,641
15	0,801	0,641
18	0,770	0,592
7	0,756	0,571
11	0,726	0,527
12	0,716	0,512
2	0,695	0,483
6	0,671	0,450
1	0,662	0,438
13	0,611	0,373
8	0,561	0,314
14	0,546	0,298
16	0,541	0,292
4	0,473	0,223
9	0,420	0,176
5	0,387	0,149
3	0,005	0,000
10	0,086	0,007
Total Variance		6,687

The selection criterion of 0,30 was used and items 3 and 10 were therefore, rejected. Thus the results of the Job Satisfaction Measure can therefore be used effectively in this research.

5.2 REGRESSION ANALYSIS

The results of the regression analysis is represented in Table 5.5:

TABLE 5.5: REGRESSION ANALYSIS WITH CHANGE MANAGEMENT AS INDEPENDENT VARIABLE AND ROLE CONFLICT, ROLE AMBIGUITY AND JOB SATISFACTION AS DEPENDENT VARIABLES

Variable	R ²	Error Variance	Mean Square	P-value
Role conflict	5,62%	0,569	3,863	0,0104
Role ambiguity	10,46%	0,455	6,066	0,0004
Job satisfaction	7,53%	0,829	7,635	0,003

Table 5.5 indicates that:

- Change is a statistically significant predictor of role conflict, role ambiguity and job satisfaction.
- The P-values for all the dependant variables, namely role conflict, role ambiguity and job satisfaction, are smaller than 0,05 and are therefore statistically significant. My H1, H2 and H3 can therefore, not be rejected.
- The R²-values are the percentage of the dependant variable, which are predicted by the independent variable.

The R² values, as set out in table 5.5, can thus be interpreted as follows:

- 5,62 percent of the variance in Role Conflict can be attributed to the effectiveness of change management.

- 10,46 percent of the variance in change management can be attributed to the effectiveness of Role Ambiguity.
- 7,53 percent of the variance in change management can be attributed to the effectiveness of Job Satisfaction.

Based on the above regression analyses (Table 5.5), the supporting evidence that change management has a significant impact on role conflict, role ambiguity and job satisfaction, would seem to be conclusive.

5.3 INTEGRATION OF RESULTS

In this section the aim will be to discuss the integration of results with specific focus on the impact of change management on role conflict, role ambiguity and job satisfaction.

5.3.1 The impact of change management on role conflict

According to Rahim (1986: 41) role conflict is part of intrapersonal conflict, defined as “a situation in which a person is motivated to engage in two or more mutually exclusive activities” (Murray, 1968 in Rahim, 1986: 41). Or alternatively when an individual has difficulty making a choice because he is pushed or pulled in opposite directions.

When considering the above definitions change management had a significant impact on role conflict and can be explained as follows:

- Through the implementation of the MONARCS information system a new planning and control office (PCO) was established. Employees were nominated by management from the pilot sites to staff the new PCO on a temporary basis. Most of them previously fulfilled roles as artisans or technical supervisors. These new positions required a complete shift in focus from a hands-on approach to a computerised office environment. According to Rahim (1986: 42)

role conflict exists when an organisational member is required to perform a task which does not match his or her expertise, goals, interests and values.

Furthermore, due to the temporary nature of the PCO positions, these changes created a great amount of uncertainty regarding the individuals' future career paths. The individuals had also been informed that, once the pilot sites were effective, the PCO positions would have to be formally advertised and that the temporary incumbents would have to compete against all other candidates for appointment in the permanent positions.

The technology the incumbents had to apply, required that most of them learned new skills resulting in some initial fears regarding their capability. The perceived loss of familiarity with methods and procedures added to these fears and uncertainty.

Reporting lines within the PCO were also unclear and confusion existed whether the nominees should report directly to the depot manager or the production managers. This resulted in incompatible demands and goal incongruence.

After the installation of networks and computers, PCO personnel had to deal with slow reaction time and systems being off-line. This caused more delays and frustration in the performance of their duties.

Therefore, not surprisingly, a perception existed of incompatibilities or incongruencies, resulting in role conflict.

- These perceptions were also evident within the technical grades, such as the artisans and trade hands. Due to the application of new technology, some of their old work methods were replaced by automated systems. This also introduced more accountability whereby each worker's productive time could be measured and the value be determined. According to Dent (1995: 24) far too many people in bureaucracies have removed themselves from accountability.

Unfortunately the capturing of time was only required down to trade hand (level 2). This phased approach created confusion and concern among workers on the lower levels, such as general workers, resulting in conflicting messages.

The implications of the above changes caused these people to feel insecure and afraid. It created a "push and pull" effect between the old way of doing and the new expected way of doing. In the early stages of the change process, this became evident through a great number of mistakes and incomplete information being circulated. Some people even reverted back to old work methods.

- Even the role of depot management (including supervisors and production managers) required a new focus regarding obtaining the best information, co-ordination and support for their depot personnel.

Production managers and supervisors perceived the PCO's role as threatening to their own. Traditionally they had been responsible for the planning and co-ordination of work according to the availability of resources. Within the new structure this became the main focus of the PCO. Production managers and supervisors were expected to focus more on support to their personnel.

A number of initial growth pains also caused confusion, such as systems that were not fully functional resulting in the need for manual methods to still be employed. Additionally, it was decided to run the old manual systems parallel to the new computerised systems, resulting in a duplication of functions. This caused inconvenience and a distortion in focus.

- Communication and liaison regarding the sharing of information between pilot site depots and other depots countrywide were complicated due to different stand alone information systems.
- Confusion also existed among personnel regarding the interfacing and integration with other information systems in the larger organisation.

- Initially there was also an increase in paperwork for most workers due to a lack of proper history on equipment, which caused some inconvenience. It even resulted in avoidance – since the target population is technically orientated, paperwork was not of interest to most of them.
- Another aspect that influenced role conflict were Resources. Financial support was lacking and therefore, it influenced technology and human resources. In some cases human resources were deployed on a temporary basis (for example, PCO) instead of permanently. This placed great demands on the project team and pilot sites. According to Rahim (1986: 49) inappropriate demand on capacity overloads the situation and is a source of role conflict.
- The fact that the MONARCS project team, based at head office, did virtually all the implementation work at the pilot sites with some assistance by the depot personnel which also contributed to intersender conflict. Kahn (1964: 19-21) states that the role receiver will experience conflict if the role behaviour demanded by one role sender is at odds with the role behaviour demanded by another role sender(s). For example, supervisors often receive instructions from line managers which may have been inconsistent with the expectations of the MONARCS project team member.

According to Kahn (1964: 20-21) all these types of role conflict have one major characteristic in common: members of a role set exert role pressures to change the behaviour of the focal person. Pressures to change represent new and additional forces with which he or she must cope.

From a change management perspective these concerns were addressed as follows:

- Vision and strategy

Given a clear understanding of the vision for the MONARCS project, a comprehensive change management strategy was designed considering all the implications of the change. According to Dent (1995: 98) the only way to confront radical change is to have a clear vision of what you want to accomplish and to operate on simple principles.

- Communication

When people are given information continually, they begin to develop a feeling for the pulse of the organisation and will adapt willingly, quickly and conceitedly (Dent, 1995: 94).

First of all, an open and transparent communication process was implemented. In this regard information was consistently shared through communication sessions and meetings. The messages addressed the vision for change; the intentions and reasons for change and what benefits they are going to get out of the change. This also resulted in energising the people to act positively and to involve them effectively in the change process.

- Structures

Once the strategy is clear, an organisational structure needed to be designed to support it (Dent, 1995: 114). Thus structure always follows strategy. To support the implementation of the MONARCS information system a project team was established and a new structure implemented in the depot environment called the planning and control office (PCO). The PCO is an added staff function to support depot management.

- **Business processes**

Hammer and Champy (1993: 35) defines a business process as a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer. A change in business processes usually results in redefining job content. Depot personnel were trained extensively in the new business processes. Manuals, on-line help as well as a period of "hand-holding" further reinforced this by project team members.

- **Tasks**

Due to changes in the business processes individual and/or group roles and responsibilities have been impacted. Role clarification exercises were designed and implemented to address the following needs:

- * A new unit (PCO) has been established and role behaviours, responsibilities and workload had to be clarified among members.
- * The same principles were applied when new group members were added to the MONARCS project team to make them feel part of the team.
- * Job profiles were designed based on outcomes and competencies in cases where people did not know what is expected of them or how their own job links with others. For example the new PCO positions.
- * Conflicts occurred about overlapping responsibilities or interfaces and encroachment on each other's rights and duties, as well as uncertainty about how much authority individuals had. This was particularly the case between the PCO personnel and production managers.
- * The need was to clarify role behaviours so as to address confusion and ambiguities.

- **Systems**

Attempts to carry out programmatic continuing change through isolated single efforts are likely to fail because of the effects of systems context (Kanter, Stein and Jick, 1992: 7).

Human resource systems such as reward-, and remuneration systems as well as career management must support the change.

- * As previously mentioned PCO personnel, in particular, experienced a need for career management support. Career management workshops and the implementation of individual development plans addressed this for all involved.
- * A system was also designed and implemented to ensure a transfer of skills from external consultants to project team members.
- * A recognition system was designed to provide feedback and to celebrate milestones and outstanding performances achieved.
- Team change

With the implementation of the change process it was expected of organisational members to work in teams within and across discipline boundaries - the MONARCS project team, for example.

A variety of team building mechanisms were employed to create a culture of interdependence such as:

- * outdoor activities, like treasure hunts, to build morale and team spirit;
- * facilitated group processes to foster empowerment concepts;
- * motivational workshops; and
- * task orientated workshops to clarify roles and responsibilities.
- People

The focus was on the training and development of people to equip and enable them with newly required knowledge, skills and attitudes. People had to be trained in new business processes as well as system functionality. Training material had to be designed anew and had to be improved as lessons were learned. Reinforcement strategies, such as on-line help, evaluation of end-users and “hand-holding” efforts, were employed to assist with the transfer of competence.

Training methods that were used constituted of lectures, experiential methods and exercises.

- Alignment

When considering fundamental change, an integrated approach needed to be followed in order to align the whole organisation (Beckhard & Pritchard, 1992: 57). Various other change projects were implemented concurrently with the MONARCS project. It was essential to communicate the implications and interfaces of each change initiative.

- Leadership

Transformational leaders are required to generate excitement and revitalise the organisation. Therefore, appropriate leadership interventions needed to be developed and implemented (Bateman & Zeithaml, 1993: 430).

Change management efforts focused on empowering leaders with transformational leadership skills. Such leaders also received training in the new system, especially in the reporting facilities.

- Culture

A company’s culture provides a framework that organises and directs people’s behaviour on the job (Bateman & Zeithaml, 1993: 324). From a change management perspective, the new behaviours and values had to be incorporated

and entrenched in all aspects of the change process. Opportunities were also given to people in workshops to deal with their reactions, feelings and attitudes on a continual basis. The key was to strike a balance between recognising what behaviours and values had ended and then moving on through transitions to new beginnings.

Climate surveys were also conducted on a continual basis to measure attitudes and the effectiveness of the change management process. This process provided valuable feedback on progress and for continuous improvement.

Regular project reviews were conducted in conjunction with all role players on all aspects of change implementation. Here the focus was on success stories as well as lessons to be learned.

5.3.2 The impact of change management on role ambiguity

According to Katz and Kahn (1978: 210) role ambiguity can occur when a person is unsure about the identity of the role senders, the purpose of fulfilling others' role expectations, or how his or her role behaviour will be evaluated. Rahim (1986: 45) states that this concept is also closely related to role conflict and that it refers to the lack of clarity in understanding what expectations or prescriptions exist for a given role.

The above aspects were clearly demonstrated during the implementation of the MONARCS project. The following are examples:

- Implementation of the SAP systems is known to be highly complex. Initially external consultants were contracted to train the depot personnel. This proved to be an unsuccessful arrangement. Consultants used concepts and terminology that lacked clarity and understanding among depot personnel. Internal business people were then selected and trained to present the training. This appeared to be far more effective.

- Due to the fact that a pilot site was selected to serve as a “model” for wider change, a lot of lessons still had to be learnt. It therefore was difficult to communicate all role expectations from the outset. Most of the information evolved as the implementation progressed. Kahn (1964: 23) states that when information either does not exist or is not properly communicated, role ambiguity occurs. In this case one should also realise that under some conditions the required information were non-existent. Job profiles were compiled in conjunction with role players and then customised as the change process evolved.
- The language medium also seemed to cause role ambiguity. During the initial communication sessions, only English was used as language medium as a result of which a large proportion of the target population could not fully comprehend the message. Therefore, translators were introduced to facilitate the process to accommodate language needs.
- The depot personnel, regarding their purpose questioned the identity of the role senders (MONARCS project team and consultants). The depot personnel for example, had concerns about how the role senders would influence their job security.
- Information on the changes were initially only communicated to personnel who would directly be influenced by the change. This resulted in a lack of information and understanding among people who were excluded. It was realised that, although some levels are not directly impacted by all the changes, they should also be informed to clarify any misconceptions.
- Research has shown that individuals differ in the degree to which experienced ambiguity is a source of strain and anxiety. Some individuals develop unusually high levels of tolerance for ambiguity (Kahn, 1964: 24). Especially when innovation is an objective, people may be more willing to accept ambiguity, because creativity is encouraged (Pondy, *et al*, 1988: 119). This was evident

throughout the change process where some individuals needed more support and assistance than others. The depot management had also been equipped with skills to be sensitive to individual experience as well as on how to deal with ambiguous situations.

- The depot personnel were also confronted with various other change initiatives in the larger organisation besides the MONARCS change project. It was essential to continually explain the implications and interfaces to them in order to ensure understanding and role clarity. This allowed those involved to “keep sight of the forest without getting overwhelmed by the trees” of day-to-day reality.

5.3.3 The impact of Change Management on Job Satisfaction

McAlister (1979: 2) defines the term “Job Satisfaction” as positive, affective attitudes or orientations by individuals towards their jobs. In essence, it is an individual’s feeling of psychological contentedness towards his or her work.

In light of the above the following aspects caused dissatisfaction during the implementation of the MONARCS project:

- As was previously mentioned, the temporary increase in administrative work frustrated most of the workers and resulted in a great amount of routine, repetitive tasks in their job content. This was addressed through role-clarification activities where group members and their leaders openly discussed the changes mutually expected in terms of member behaviour, authority, responsibility and workload. Emphasis was also placed on the understanding of the systems and how an individual’s job links with others.
- Physical working conditions in the PCO was not conducive to job satisfaction. It was decided to erect these offices in the depot environment itself. This caused a lot of inconvenience regarding noise, ventilation, lack of appropriate furniture

and security. Furthermore, working hours were changed to shift work which required adaptation for some individuals. An Industrial engineer was contracted to optimise the physical working conditions to facilitate successful change in this regard.

- Recognition for good work is one of the stronger determinants of job satisfaction for an individual, because feedback is given on how he or she is performing (Watkins, 1991: 44). Part of the change management strategy was to provide recognition for outstanding performance.

Special recognition events were arranged to celebrate milestones achieved, involving all depot personnel. On these forums individuals or teams received visible recognition for outstanding performance. On an informal basis, various forms of recognition were used such as feedback, recognition letters, time off, a weekend away and dinner for two. This was done on a continuous basis and proved to be a strong leverage mechanism for change.

- The influence of remuneration on job satisfaction arises when the individual perceives unfairness in the amount of money received, especially in comparison with colleagues (Watkins et al, 1991: 43). Due to the fact that the nature of the work and the level of skills changed for some individuals, (particularly PCO personnel) dissatisfaction occurred. These cases were addressed by evaluating the level of work in conjunction with all role players. Where applicable, the appropriate remuneration level was implemented. This also resulted in promotion opportunities for employees, which in turn influenced job satisfaction, thus supporting the change initiative.

5.4 CHAPTER SUMMARY

In this chapter results has been reported and interpreted. Hereby the fourth specific aim has been achieved, namely to determine whether the introduction of change management, impacts on role conflict, role ambiguity and job satisfaction amongst employees working together.

Chapter six discusses conclusions, limitations and recommendations of the research.

CHAPTER SIX

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

Chapter six contains the conclusion of results, discussion on the limitations and formulation of recommendations.

6.1 CONCLUSION OF RESEARCH

When change occurs in one of the organisation's areas reaction can be expected from other related systems or subsystems.

To effectively manage the impact of change on the different systems, appropriate support mechanisms must be in place:

- Counselling opportunities must be available for organisational members to assist them in dealing with their reactions, feelings and attitudes on a continual basis.
- Training and development interventions to facilitate the learning of new required skills.
- Recognition and reward systems must be utilised to celebrate milestones achieved and proved to be a strong leverage mechanism for change.
- An open and transparent communication process must be implemented to clarify the vision for change, the intentions and reasons for change.
- The clarification of roles and responsibilities must be facilitated to address confusion and ambiguities.

Finally the change initiative must be implemented in the shortest possible time frame. This helps to reduce uncertainty on the one hand and curbs loss in productivity on the other hand.

6.2 DISCUSSION ON LIMITATIONS OF THE RESEARCH

The limitations of the research are discussed with regard to the literature review and the empirical study.

Phase 1 With regard to the literature review the following limitations were encountered:

- Although enough literature is available on both change management and organisational roles, there is little reference to be find of a direct link between change management, on the one hand, and role conflict, role ambiguity and job satisfaction on the other hand.

Phase 2 With regard to the empirical study the following limitations were encountered:

- The whole area of measuring change management appears to be a developing one.
- The impact of the organisation's culture on the individual assessment should not be underestimated. Other changes in the organisation may also have an influence on people's attitudes and opinions.
- A larger sample could have been utilised, thereby providing a larger quantity of data.
- Questionnaire replies are more useful for identifying attitudes than for predicting behaviour (Sommer and Sommer, 1991: 150).

6.3 RECOMMENDATIONS

The literature survey on change management resulted in a Change Management Measure addressing all the elements as discussed. Further research is necessary to determine if this measurement is applicable to all change processes in other environments and organisations.

Furthermore, the above measure is more useful for identifying attitude changes than behavioural changes. Further exploration is necessary to establish whether this measure can predict behaviour changes.

Considering the demands of the fast-changing competitive scene in organisations, change agents and/or leaders are fulfilling a critical role by ensuring attitudinal and behavioural changes in employees. Therefore, the concepts of change management and the impact it has on organisational roles have significant application in the field of training and development.

The empirical study provides enough statistically significant evidence supporting the literature survey. As mentioned above, the Change Management Measure should be critically looked at, adding behavioural examples reflecting a successful change implementation.

For the purpose of this study, measurement instruments were administered at four pilot sites only. These measures should be administered further to turn it into an organisationwide exercise once the information system has been implemented in the rest of the organisation.

6.4 CHAPTER SUMMARY

This chapter discussed the conclusions of the research. Limitations of the research as well as recommendations were discussed.

Herewith the fifth specific aim has been achieved, namely to formulate recommendations in terms of change management with reference to the existing literature on the concept, the future implementation of change in this organisation as well as generally in Organisational Psychology and Psychometrics.

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TO: WHOM IT MAY CONCERN

RESEARCH : CHANGE MANAGEMENT (MONARCS PROJECT)

The aim of this research is to establish the impact of change management on role expectations in a national transport organisation. The specific focus will be to determine how effective the change management process supports the MONARCS project. In all four pilot sites people have been selected at random to participate in this research.

It will therefore be appreciated if you will take the time to complete the enclosed questionnaires. This will benefit the project team as well as the organisation in terms of further implementation.

All information will be held in strictest confidence and will only be used summarily. The collective results will be made available to you through the depot management.

If you need any information or additional material, please contact me at the given telephone number.

Thanking you in advance.

**(MS) E. VAN NIEKERK
ASSISTANT MANAGER
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QUESTIONNAIRE CONTEXT

The purpose of this research is to examine the impact of change management on role expectations. The questionnaire consists of the following:

- Part A - gathers biographical information about you, your job, etc.
- Part B - asks questions specifically related to the elements of change management and how you perceive it.
- Part C - asks questions specifically related to role ambiguity
- Part D - asks questions specifically related to role conflict.
- Part E - asks questions specifically related to your feelings about your job.

Thank you for participating in this study.

PART A : BIOGRAPHICAL DATA

Please select/circle the appropriate information in the space provided.

1. Your job title

Depot Manager/Technical Manager	1
Planning Control Office (PCO)	2
Production Manager	3
Supervisor	4
Artisan	5
Trade Hand	6

2. How long have you been employed by this organisation?

less than 1 year	1
1-5 years	2
6-10 years	3
11-15 years	4
16-20 years	5
21-25 years	6
26-30 years	7
more than 30 years	8

3. At what pilot site are you located?

Koedoespoort	1
Pyramid South	2
Carbon Quay	3
Salvokop	4

4. Your age

20-24	1
25-29	2
30-34	3
35-39	4
40-44	5
45-49	6
50-54	7
55-60	8

PART B : CHANGE MANAGEMENT MEASURE

Please choose the appropriate response by ticking one of the corresponding boxes

		YES	NO	UNSURE
1.	I fully understand what MONARCS is.	2	0	1
2.	Our team achieved the objectives of the MONARCS project.	2	0	1
3.	Our leaders have spent a lot of their time and attention to explain and demonstrate to us the new direction created by the MONARCS project.	2	0	1
4.	MONARCS helped us to provide a better service to our clients.	2	0	1
5.	I believe that implementing MONARCS is vital to Rolling Stock's future.	2	0	1
6.	I fully understand how my job will change after completion of the MONARCS project.	2	0	1
7.	I believe that information had been communicated to employees in such a manner that it was understood by all.	2	0	1
8.	I feel that my concerns regarding the implications of MONARCS were discussed in an open and credible manner.	2	0	1
9.	I believe that it was good strategy to implement MONARCS at a pilot site before implementing the project in the rest of the organisation.	2	0	1
10.	I believe that the new PCO (planning and control office) will make us more efficient in doing our jobs.	2	0	1
11.	The training involved in the MONARCS project was done effectively.	2	0	1

PART C : ROLE AMBIGUITY MEASUREMENT SCALE

Please indicate the extent to which you agree or disagree with each of the statements below by ticking one of the corresponding boxes.

1. I am certain about how much authority I have.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

2. I have clear, planned goals and objectives for my job.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

3. I experience a lack of policies and guidelines to help me.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

4. I am corrected or rewarded when I really don't expect it.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

5. I know what my responsibilities are.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

6. I have to "feel my way" around in performing my duties.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

7. I am certain about how I will be evaluated for a raise or promotion.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

8. I believe I have divided my time properly.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

9. I know exactly what is expected of me.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

10. I am uncertain as to how my job is linked to other jobs.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

11. I am told how well I am doing my job.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

12. Explanations of what has to be done are clear.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

13. I have to work under vague directives or orders.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

14. I don't know if my work will be acceptable to my boss.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

7. I have to buck a role or a policy in order to carry out an assignment.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

8. I receive assignments that are within my training and capability.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

9. I have just the right amount of work to do.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

10. I work with two or more groups who operate quite differently.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

11. I receive incompatible requests from two or more people.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

12. I do things that are apt to be accepted by one person and not accepted by others.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

13. I receive an assignment without adequate resources and materials to execute it.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

14. I work on unnecessary things.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

15. I perform work that suits my values.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

PART E : JOB SATISFACTION MEASURE

Some jobs are more interesting and satisfying than others. We want to know how people feel about different jobs. This section contains eighteen statements about jobs. Please cross out the phrase below each statement which best describes how you feel about your present job. There are no right or wrong answers. Please provide your honest opinion on each one of the statements. We will now complete the sample item numbered (0).

0. There are some conditions concerning my job that could be improved.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

1. My job is like a hobby to me.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

2. My job is usually interesting enough to keep me from getting bored.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

3. It seems that my friends are more interested in their jobs than I am in mine.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

4. I consider my job rather unpleasant.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

5. I enjoy my work more than my leisure time.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

6. I am often bored with my job.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

7. I am fairly satisfied with my present job.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

8. Most of the time I have to force myself to go to work.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

9. I am satisfied with my job for the time being.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

10. I feel that my job is no more interesting than others I could get.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

11. I definitely dislike my work.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

12. I feel that I am happier in my work than most other people are.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

13. Most days I am enthusiastic about my work.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

14. Each day at work seems as though it will never end.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

15. I like my job better than the average worker does.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

16. My job is pretty uninteresting.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

17. I find real enjoyment in my work.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7

18. I am disappointed that I ever took the job.

Disagree Strongly	Disagree	Disagree Slightly	Neither agree nor disagree	Agree Slightly	Agree	Agree Strongly
1	2	3	4	5	6	7