

**THE VALIDATION OF AN ORGANISATIONAL CLIMATE QUESTIONNAIRE  
IN A CORPORATE PHARMACY GROUP**

Andries Johannes Combrink Hons. BA.

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**Supervisor:** Prof. S. Rothmann

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**“God of wonders beyond our galaxy,  
the whole earth declares your Majesty  
– You are Holy!”**

## REMARKS

The reader is reminded of the following:

- The references as well as the editorial style as prescribed by the *Publication Manual (4<sup>th</sup> edition)* of the American Psychological Association (APA) were followed in this dissertation. This practice is in line with the policy of the Programme in Industrial Psychology at North-West University to use the APA style in all scientific documents as from January 1999.
- The mini-dissertation is submitted in the form of a research article. The editorial style specified by the *South African Journal of Industrial Psychology* (which agrees largely with the APA style) is used, but the APA guidelines were followed in constructing tables.

## **ABSTRACT**

Topic: The validation of an organisational climate questionnaire within a corporate pharmacy group

Key words: Organisational climate, validate, reliability, measurement, employee behaviour

The creation of a healthy, motivating organisational climate should be the aim of management. Organisational climate refers to a complex set of forces within an organisation, which have a direct influence on those who work in it. Studying organisational climate is imperative to understanding how organisations function at their core. However, a validated instrument is needed to detect the climate in an organisation. The objective of this study was to validate an organisational climate questionnaire in a corporate pharmacy group.

A cross sectional survey design was used. Interviews were conducted with employees and an organisational climate questionnaire was constructed. The Organisational Climate Questionnaire (OCC) was completed by a sample of employees in a corporate pharmacy group ( $N = 159$ ). Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) inferential statistics were used to analyse the results.

Factors extracted include recognition and feedback, management, work relationships, task characteristics, responsibility, work pressure and decision-making. The internal consistencies of two factors were unacceptable. One-way analysis of variance of organisational climate in different regions showed practically significant differences between North West and Mpumalanga

regarding how they currently view management, as well as practically significant differences between North West and both Free State and Gauteng concerning Management. The average responses of the white employees and employees of colour in this study seem to be the same, except regarding recognition and feedback. The average responses of the employees from the two gender groups seem to be the same, except regarding responsibility and work pressure.

Recommendations for future research were made.

## OPSOMMING

Onderwerp: Die validering van 'n organisasieklimaat-vraelys binne 'n korporatiewe farmaseutiese maatskappy.

Sleutelwoorde: Organisasieklimaat, validering, betroubaarheid, meting, werknemergedrag

Die doelstelling van bestuur behoort te wees om 'n gesonde, motiverende organisasieklimaat te skep. Organisasieklimaat verwys na 'n komplekse reeks kragte binne 'n organisasie wat 'n direkte invloed het op diegene wat daarbinne werk. Die bestudering van organisasieklimaat is noodsaaklik ten einde te verstaan hoe organisasies in hul kern funksioneer. 'n Gevalideerde instrument is egter nodig om die klimaat in 'n organisasie te bepaal. Die doel van hierdie studie was om 'n organisasieklimaat-vraelys in 'n korporatiewe farmaseutiese maatskappy te valideer.

'n Dwarssnee opname-ontwerp is gebruik. Onderhoude is met werknemers gevoer, waarna 'n organisasieklimaatvraelys gekonstrueer is. Die Organisasie Klimaatvraelys (OKV) is voltooi deur 'n steekproef ( $N = 159$ ) bestaande uit werknemers van 'n korporatiewe farmaseutiese maatskappy. Beskrywende statistiek (bv. gemiddeldes, standaardafwykings, skeefheid en kurtose) en inferensiële statistiek is gebruik om die data te analiseer.

Faktore wat na vore gekom het sluit in erkenning en terugvoer, bestuur, werksverhoudinge, taakeienskappe, verantwoordelikheid, werksdruk en besluitneming. Die interne konsekwentheid van twee faktore was onaanvaarbaar. Eenrigting variansie-ontleding ten opsigte van die organisasieklimaat in verskillende streke het prakties betekenisvolle verskille

tussen Noordwes en Mpumalanga rakende die manier waarop Bestuur beleef word aangetoon, asook prakties betekenisvolle verskille tussen Noordwes en Vrystaat en Gauteng rakende bestuur. Die gemiddelde response van die blanke werknemers en werknemers van kleur blyk ook dieselfde te wees, behalwe wat betref erkenning en terugvoer. Die gemiddelde response van die werknemers van beide geslagte was dieselfde, behalwe wat betref verantwoordelikheid en werksdruk.

Aanbevelings vir toekomstige navorsing is aan die hand gedoen.

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Tierney (1999) holds the view that organisation climate develops on a social level. To the contrary Field and Abelson (1982), Furnham (1997) and Manning (1990) are of the opinion that organisational climate is formed in a much more complex way. According to Manning (1990) it is formed through: (1) the perceived freedom employees experience within an organisation; (2) the extent of challenge within their job; (3) remuneration and recognition; (4) the warmth and support from fellow employees; (5) the amount of conflict in the work environment, and (6) the way in which management treats their employees.

According to Furnham (1997) climate is a complex set of forces within an organisation which has a direct influence on those who work in it. Employees in pharmaceutical companies have to cope with the demands that arise from fulfilling various roles, as well as with increased pressures such as managed health care and primary health care. Tracking and addressing their effectiveness in coping with new demands and stimulating their growth in areas that could possibly impact on the standard of pharmaceutical services is therefore of great importance (Gupchup, Singhal, Dole & Lively, 1998).

The creation of a healthy, motivating organisational climate should be the aim of management. Studying organisational climate is imperative to understanding how organisations function at their core. A knowledge of climate variables enables management to direct those forces towards the accomplishment of organisation goals. According to Litwin and Stringer (1968) climate provides theorists with a conceptual link between the elements of the organisational system and the determinants of individual behaviour. It provides managers with a link between their organisation's procedures and practices and the concerns and needs of individual workers. Managers must know how different procedures and practises will stimulate these worker needs and how worker motivation can be enhanced. To gain this understanding, the dynamics of organisational climate must be studied.

Organisational climate, according to Veldsman (1995), refers to the psychological structures of organisations and their sub-units, and can also be described as the personality or character of the organisation's internal environment. The internal environment is influenced by various forces and in turn influences aspects such as employee achievement, behaviour, attitude and job satisfaction (Veldsman, 1995).

While the characteristics of organisation climate may vary from one organisation to another, there are also common elements of climate across different organisations (Moran & Volkwein, 1992). Milton (1981) draws the following conclusions from extensive research on organisation climate:

- Organisations may have multiple climates which can be affected differently by various organisational interventions, for example organisational restructuring.
- Climate is often perceived differently by top, middle and lower levels of management, indicating that changes in climate can also be differently perceived and experienced by these management levels.
- Evidence suggests that organisations have climates that differ from one another, meaning that climate changes will impact differently on the various organisations.
- Organisation studies have clearly indicated that climate variables influence the predictability of such aspects as employee performance, job satisfaction and motivation. Changes in climate variables can thus also affect these aspects.

The climate of the organisation has a vital impact on individuals in the workplace. Furnham (1997) describes the significant relationship between organisational climate and the job satisfaction and job performance of employees in the work place. A further distinction can be made between actual climate and the perceived climate in an organisation.

Ekvall (1991) asserts that climate acts as an intervening variable in an organisation. Climate influences, and is subsequently influenced by the outcome of organisational operations. Climate affects outcomes by influencing organisational processes such as problem solving, decision making, communicating and co-ordinating, the individual processes of learning and creating, and levels of motivation and commitment. These in turn influence the ways in which the organisation uses its resources such as people, buildings, intellectual property and funds. These effects subsequently become apparent in the quality of the products or services produced, whether these are radically new products, minor improvements of old ones, job satisfaction, productivity, profit, or emotional and physical well-being. These factors, in turn, affect both the availability of resources and the climate itself.

Mullins (1989) argues that a healthy organisational climate might be expected to exhibit such characteristic features as:

- The integration of organisational goals and personal goals;
- A flexible structure with a network of authority, control and communications, and with autonomy for individual members;
- Styles of leadership appropriate to particular work situations;
- Mutual trust, consideration and support among different levels of the organisation;
- Recognition of individual differences and attributes, and of people's needs and expectations at work;
- Attention to job design and the quality of working life;
- Challenging and responsible jobs with high performance standards;
- Equitable systems of rewards based on positive reinforcement'
- Opportunities for personal development, career progression and advancement;
- Justice in treatment, and fair personnel and industrial relations policies and practices;
- The open discussion of conflict with emphasis on the settlement of differences without delay or confrontation;
- A sense of identity with, and loyalty to, the organisation and a feeling of being needed and of feeling oneself to be an important member of the organisation.

Besides the characteristics it is important to look at different dimensions of organisational climate. Examples of dimensions used in measuring organisational climate include (Litwin & Stringer, 1968):

- Structure and constraint
- Individual responsibility
- Warmth and support
- Reward and punishment
- Conflict
- Dimensional inter relationships
- Risk and risk taking

The importance of isolating dimensions can be seen in three things: (1) that dimensions allow us to see climate accurately, (2) that dimensions are related to specific motivations and motivated behaviour, and (3) that changes in climate can be measured (Litwin & Stringer, 1968). Dimensions are convenient clusters because of their suitability for measurement.

According to Furnham (1997) the antecedents of climate can, in principle, be specified, measured and delineated. Various models have been developed to explain which factors interact to produce climate and how they do so. There are many ways to categorise these factors:

- External forces: economic, market, political, social, technological.
- Organisational history: the culture, values, and behaviour patterns of the organisation.
- Management: the organisational structure and leadership pattern.

The influence that organisation climate has on individuals is twofold. Firstly, there is direct influence that affects all or almost all members of the company or some subunit of it. The second kind of effect is termed interactive influence, which exists when climate has a certain effect upon the behaviour of some people, a different effect on others, and possibly no effect at all on still others.

The Pharmacy Group where this research has been undertaken employs 250 individuals. The company is a diversified group with multiple interests in the Pharmaceutical Industry. It is a national firm with stakes in the Free State, North-West Province, Gauteng and Mpumalanga. Through an internal evaluation process, management came to the conclusion that certain branches of the company have far better client service than others. The pressure to perform also differs from region to region. Even though certain regions experience greater pressure they still give better client service. The assumption can also be made that employees of certain branches experience greater joy and job satisfaction than others. A final assumption that can be made is that the climate of each region differs considerably from each other and as a consequence has an influence on the above mentioned problem statement.

The study of climate requires some method of assessment, measurement and diagnoses. According to Harvey and Brown (1992), diagnoses is a systematic approach to understanding and describing the present state of the organisation. The purpose of the diagnostic phase is to specify the nature of the exact problem requiring solution, to identify the underlying causal forces, and to provide a basis for selecting effective change strategies and techniques. According to Litwin and Stringer (1968) the climate of an organisation could be defined operationally as the sum of the perceptions of the individuals working in that organisation.

Part of the problem consists of the fact that there is no validated measuring instrument to measure climate in the pharmacy group.

The following research questions can be formulated based on the description of the research problem:

- How is organisational climate conceptualised in literature?
- What are the dimensions of organisational climate and how can it be measured?
- What is the reliability and validity of an organisational climate questionnaire in a corporate pharmacy group?
- What is the organisational climate within a corporate pharmacy group?
- Are there differences in organisational climate amongst the regions where the company operates?
- How do various demographic groups differ regarding their perceptions of organisational climate?

## **1.2 RESEARCH AIMS**

The research objectives are divided into general and specific objectives.

### **1.2.1 General objective**

The general objective of this study is to validate an organisational climate questionnaire, to determine the organisational climate in a corporate pharmacy group and to compare the perceptions of organisational climate in various demographic groups.

### **1.2.2 Specific objectives**

The specific objectives of this research are:

- To conceptualise organisational climate from literature.
- To determine the dimensions of organisational climate and how it can be measured.
- To determine the reliability and validity of an organisational climate questionnaire in a corporate pharmacy group.

- To determine the organisational climate within a corporate pharmacy group.
- To examine there differences in organisational climate amongst the regions where the company operates.
- To determine how various demographic groups differ regarding their perceptions of organisational climate.

## **1.3 RESEARCH METHOD**

### **1.3.1 Literature review**

The terms relevant to this research are described, followed by theories and stances on organisational climate. Relevant literature concerning the validation of an organisational climate questionnaire is studied.

### **1.3.2 Empirical study**

#### **1.3.2.1 Research design**

A cross sectional design is used as measuring instrument, whereby a sample is drawn from a population at a particular point in time. According to Shaughnessy and Zechmeister (1997), this design is ideally suited to the descriptive and predictive functions associated with correlational research. In this research internal validity is secured on a contextual level by the conceptualisation of organisational climate as defined in the literature. External validity is secured on a universal basis by selecting subjects within a single organisation and using all employees of the organisation for the research.

#### **1.3.2.2 Participants**

Employees in a corporate pharmacy group ( $N = 159$ ) were included in the empirical study. The study population included senior and middle managers, retail and executive pharmacists, support and administrative personnel that functions at head office and in the different branches of the Group (North West, Free State, Gauteng and Mpumulanga).

### 1.3.2.3 Measuring instrument

An Organisational Climate Questionnaire is used as measuring instrument. A Seven Point Likert Scale is used in the questionnaire. The aim of this design is to measure the climate of a large pharmaceutical company. The design also aims to measure the differences in climate between different regions in the company. A further aim of the research design is to structure the research in such a way that the internal validity and the external validity of the research findings are increased (Mouton & Marais, 1992, p. 35).

### 1.3.2.4 Statistical analysis

The data analysis was carried out with the help of the SAS-programme (SAS Institute, 2000). Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) are used to analyse the data. Principal factors extraction with varimax rotation are performed on the items of the Organisational Climate Questionnaire.

Cronbach's alpha coefficient and inter-item correlation coefficients are used to assess the internal consistency of the measuring instruments (Clark & Watson, 1995). Coefficient alpha conveys important information regarding the proportion of error variance contained in a scale. According to Clark and Watson (1995), the average inter-item correlation coefficient (which is a straightforward measure of internal consistency) is a useful index to supplement information supplied by coefficient alpha. However, unidimensionality of a scale cannot be ensured simply by focusing on the mean inter-item correlation – it is also necessary to examine the range and distribution of these correlations.

T-tests and one-way analysis of the variance (ANOVA) was used to determine differences between the sub-groups in the sample. The following formula is used to determine the practical significance of differences ( $d$ ) when t-tests are used:

$$d = \frac{Mean_A - Mean_B}{SD_{MAX}}$$

where

$Mean_A$  = Mean of the first group

$Mean_B$  = Mean of the second group

$SD_{MAX}$  = Highest standard deviation of the two groups

A cut-off point of 0,50 (medium effect, Cohen, 1988) was set for the practical significance of differences between means.

#### **1.4 DIVISION OF CHAPTERS**

The chapters in this study are divided as follows:

Chapter 1: Introduction.

Chapter 2: Research article

Chapter 3: Conclusion and Recommendations.

#### **1.5 CHAPTER SUMMARY**

In Chapter 1 the rational of the study was discussed through the description of the problem statement. After this the general as well as specific research aims, the research method and chapter divisions were discussed.

## REFERENCES

- Altman, R. (2000). Forecasting your organizational climate. *Journal of Property Management*, 65, 62–66.
- Campbell, J.P., Dunnette, M., Lawler, E.E. & Weick, K.E. Jr. (1970). *Managerial behaviour, performance, and effectiveness*. New York: McGraw-Hill.
- Clark, L.A. & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7, 309–319.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (Revised ed.). Orlando, FL: Academic Press.
- Ekvall, G. (1991). The organizational culture of idea-management: A creative climate for the management of ideas. In J. Henry & D. Walker (Eds.), *Managing innovation*. London: SAGE.
- Field, R.H.G. & Abelson, J.G. (1982). Climate: A reconceptualization and proposed model. *Human Relations*, 35, 181–201.
- French, W.L., Bell, C.H. & Zawacki, R.A. (1994). *Organization development and transformation: Managing effective change*. Burr Ridge, IL: Irwin.
- Furnham, F. (1997). *The psychology of behaviour at work: The individual in the organization*. Sussex, UK: Psychology Press.
- Gupchup, G.V., Singhal, P.K., Dole, E.J. & Lively, B.T. (1998). Burnout in a sample of HMO pharmacists using the Maslach Burnout Inventory. *Journal of Managed Care Pharmacy*, 4, 495–503.
- Harvey, D.F. & Brown, D.F. (1992). *An experimental approach to organization development*. Englewood Cliffs, NJ: Prentice-Hall.
- Landy, F.J. & Trumbo, D.A. (1980). *Psychology of work behaviour*. Homewood, IL: Dorsey Press.
- Litwin, G.H. & Stringer, R.A. (1968). *Motivation and organizational climate*. Boston, MA: Harvard Business Press.
- Manning, T. (1990). Beyond corporate culture. *IPM Journal*, 8, 23–25.
- Milton, C.M. (1981). *Human behaviour in organisation: Three levels of behaviour*. Englewood Cliffs, NJ: Prentice-Hall.
- Moran, E.T. & Volkwein, J.F. (1992). The cultural approach to the formation of organisational climate. *Human Relations*, 45, 34–45.

- Mouton, J.& Marais, H.C. (1992). *Basiese begrippe: Metodologie van die geesteswetenskappe*. Pretoria: RGN.
- Mullins, L. (1989). *Management and organizational behaviour*. London: Pitman.
- Reichers, A.E. & Schneider, B. (1999). *Organizational climate and culture*. San Francisco, CA: Jossey-Bass.
- SAS Institute. (2000). *The SAS System for Windows Release 8*. Cary, NC: SAS Institute Inc.
- Situation Report. (1997). South Africa's antennal results give mixed messages. *AIDS Analysis Africa*, 9, 1-2.
- Shaughnessy, J.J. & Zechmeister, E.B. (1997). *Research methods in psychology* (4<sup>th</sup> ed.). New York: McGraw-Hill.
- Sverke, M. & Hellgren, J. (2002). Job insecurity: Understanding employment uncertainty in the brink of the new millennium. *Applied Psychology: An International Review*, 51, 23-42.
- Tagiuri, R. (1968). The concept of organizational climate. In R. Taguri & G. Litwin (Eds.), *Organizational climate: Explorations of a concept*. Boston, MA: Harvard University.
- Tierney, P. (1999). Work relations as a precursor to a psychological climate for change. The role of work group supervisors and peers. *Journal of Change Management*, 12, 12-24.
- Veldsman, F.H.J. (1995). *Die invloed van enkele biografiese veranderlikes op die werknemer se persepsie van organisasieklimaat en organisasieverbondenheid*. Unpublished master's dissertation, University of Pretoria, Pretoria.

## **CHAPTER 2**

### **RESEARCH ARTICLE**

# **THE VALIDATION OF AN ORGANISATIONAL CLIMATE QUESTIONNAIRE IN A CORPORATE PHARMACY GROUP**

J. COMBRINK

S. ROTHMANN

*Workwell: Research Unit for People, Policy and Performance, North-West University, Potchefstroom*

## **ABSTRACT**

The objective of this study was to validate an organisational climate questionnaire in a corporate pharmacy group. A cross-sectional survey design was used. The sample consisted of employees in a corporate pharmacy group ( $N = 159$ ). Interviews were conducted, where after an organisational climate questionnaire was constructed. Principal factor analysis with a varimax rotation resulted in a seven-factor structure of organisational climate. The seven factors were labelled recognition and feedback, management, work relationships, task characteristics, responsibility, work pressure and decision making. The internal consistencies of two factors were unacceptable. One-way analysis of variance showed significant differences between the organisational climate in different regions.

## **OPSOMMING**

Die doel van hierdie studie was om 'n organisasieklimaatvraelys in 'n korporatiewe farmaseutiese maatskappy te valideer. 'n Dwarssnee opname-ontwerp is gebruik. Die steekproef het bestaan uit werknemers van 'n korporatiewe farmaseutiese groep ( $N = 159$ ). Onderhoude is met werknemers gevoer, waarna 'n organisasieklimaatvraelys gekonstrueer is. Op grond van 'n verkennende faktoranalise met 'n varimax rotasie is 'n sewe-faktor struktuur van organisasieklimaat saamgestel. Die sewe

faktore is benoem as erkenning en terugvoer, bestuur, werksverhoudinge, taakkenmerke, verantwoordelikheid, werksdruk en besluitneming. Die interne konsekwentheid van twee faktore was onaanvaarbaar. Eenrigting variansieontleding het beduidende verskille tussen die organisasieklimaat in verskillende streke aangetoon.

Since the late 1970's, economic recessions, industrial restructuring, technological change and an intensified global competition have dramatically changed the nature of work (Sverke & Hellgren, 2002). In the 1980's the demands on organisations intensified: competition increased; customers demanded better products and services; the Total Quality Movement created winners and losers; information technology exploded; economic and political changes occurred. On top of these increased levels of competition in the marketplace, the high costs associated with human resources, increases in employee transience, and shortages of qualified knowledge workers, organisations have actively pursued the notion of making more effective use of the knowledge and expertise, that is, the "intellectual capital," that exists within their existing employee base (Alavi & Leidner, 2001; Davenport & Prusak, 1998; Grover & Davenport, 2001).

Pharmaceutical companies in South-Africa are challenged with a constantly changing environment. The business environment in which these companies function is characterised by tremendous advancements in the fields of technology and product development. The South African social environment is one characterised by poverty, lack of basic education, lack of primary health care and life-threatening diseases such as HIV/AIDS that is reaching epidemic proportions (Situation Report, 1997).

Organisations have to change fast to survive (French, Bell & Zawaki, 1994). Knowledge of organisation climate variables enables management to direct those forces towards the accomplishment of organisation goals. It provides managers with a link between their organisation's procedures and practices and the concerns and needs of individual workers. Managers should know how

different procedures and practises will stimulate worker needs and how worker motivation can be enhanced.

Employees in pharmaceutical companies have to cope with the demands that arise from fulfilling various roles, as well as with increased pressures such as managed health care and primary health care. It is therefore of great importance to track and address their effectiveness in coping with new demands and stimulating their growth in areas that could possibly have an impact on the standard of pharmaceutical services (Gupchup, Singhal, Dole & Lively, 1998).

The creation of a healthy, motivating organisational climate should be the aim of management. According to Furnham (1997), organisational climate is a complex set of forces within an organisation, which have a direct influence on those who work in it. Studying organisational climate is imperative to understanding how organisations function at their core. According to Litwin and Stringer (1968), organisational climate provides theorists with a conceptual link between the elements of the organisational system and the determinants of individual behaviour. To gain this understanding, the dynamics of organisational climate must be studied.

The Pharmacy Group where this research has been undertaken employs 250 individuals. The company is a diversified group with multiple interests in the Pharmaceutical Industry. It is a national firm with stakes in the Free State, North-West Province, Gauteng and Mpumalanga. Through an internal evaluation process, management came to the conclusion that certain branches of the company have far better client service than others. The pressure to perform also differs from region to region. Even though certain regions

experience greater pressure they still provide better client service. The assumption was made that employees of certain branches experience greater joy and work fulfilment than others. Therefore, it is possible that the climate of each region differs considerably from each other and as a consequence has an influence on the above mentioned problem statement.

The study of organisational climate requires some method of assessment, measurement and diagnoses. According to Harvey and Brown (1992), diagnoses is a systematic approach to understanding and describing the present state of the organisation. The purpose of the diagnostic phase is to specify the nature of the exact problem requiring solution, to identify the underlying causal forces, and to provide a basis for selecting effective change strategies and techniques. According to Litwin and Stringer (1968), the climate of an organisation could be defined operationally as the sum of the perceptions of the individuals working in that organisation. The problem is, however, that no valid measuring instrument of organisational climate was found for the pharmacy group.

Arising from this problem a number of other issues pertaining to this study come to the fore. It is imperative that the conceptualisation of organisational climate be looked at in the literature, but also to determine what the organisational climate within a corporate pharmacy group should be? Once this foundation has been cast, the measurable dimensions of organisational climate need to be examined together with the inherent reliability and validity of an organisational climate questionnaire in a corporate pharmacy group. The next issue would be to look at possible differences in organisational climate amongst the regions where the company operate and if various demographic

groups differ regarding their perceptions of organisational climate in demographic groups.

The objective of this study was to validate an organisational climate questionnaire in a corporate pharmacy group and to assess the differences between perceptions of organisational climate by various demographic groups.

### **Organisational climate**

Organisational climate, according to Veldsman (1995), refers to the psychological structures of organisations and their sub-units, and can also be described as the personality or character of the organisation's internal environment. The internal environment is influenced by various forces and in turn influences aspects such as employee achievement, behaviour, attitudes and job satisfaction (Veldsman, 1995).

The genesis of organisational climate, unlike that of culture, lies in the individual difference psychology of environmental cognition and perception. The concept of organisational climate is concerned with the relative importance of individual and situational antecedents of perception in models that recognise both situational and individual causation. For example, climate models often begin with situational stimuli such as pay, group size, or technological complexity (James, Demaree, Mulaik & Ladd, 1992; James & Jones, 1980; James & Tetrick, 1986).

However, organisational climate is not so much concerned with perceptions of how situational stimuli exist externally as it is with how these stimuli are interpreted by individuals within each working environment. Thus it is not pay

per se that is of primary concern; it is how “equitable” pay is perceived to be. In like manner, group size is less important than perceptions of “friendliness and cooperativeness of intragroup relations”, and task complexity is of less salience than perceptions of the “challenge” imputed to that complexity.

Organisational climate emphasises the individualistic, phenomenological, and interpretive aspects of perception, because the constructs of interest in climate research (for example, equity, friendliness, cooperativeness, challenge) are intrinsically psychological. Constructs such as equity and challenge reflect the acquired meanings that environments have for individuals, which is why climate is usually defined as a product of cognitive appraisals of working environments (James, James & Ashe, 1990).

Aggregating organisational climate, like culture, is beyond the bounds of the present treatment, because of its extra-individual level of analysis. While the characteristics of organisational climate may vary from one organisation to another, there are also common elements of climate across different organisations (Moran & Volkwein, 1992). The climate in the organisation has a vital impact on individuals in the workplace. Furnham (1997) describes the significant relationship between organisational climate and the job satisfaction and job performance of employees in the workplace. A further distinction can be made between actual climate and the perceived climate in an organisation.

Mullins (1989) argues that a healthy organisational climate might be expected to exhibit such characteristic features as:

- The integration of organisational goals and personal goals
- A flexible structure with a network of authority, control and communications, and with autonomy for individual members

Fisher and Fraser (1991), Dorman et al. (1997) and Cresswell and Fisher (1997).

Climate has variously been conceptualised as an individual attribute of an organisation measurable by a multi-trait matrix (Schneider & Barlett, 1970), a sub-system phenomenon (Powell & Butterfield, 1978), and an organisational entity (Campbell et al., 1970). While formally established guidelines as to the key elemental components of climate are yet to find universal acceptance, the explanatory powers of the concept lay in its potential to conceptually link organisational and individual behavioural phenomena (Falcione et al., 1987; Moran & Volkwein, 1992). It is this promise that has attracted researchers to attempt to operationalise and quantify climate. A number of researchers, including Jones and James (1979), Middlemist and Hitt (1981) and Joyce and Slocum (1982) have argued in favour of a multi-dimensional approach to the issue of measurement.

The Litwin and Stringer Organizational Climate Questionnaire (LSOCQ) is a perceptual measure of organisational climate. Litwin and Stringer (1968) state that the term organisational climate refers to a set of measurable properties of the work environment, perceived directly or indirectly by the people who live and work in this environment and assumed to influence their motivation and behaviour. The LSOQC was developed to assess organisation members' perceptions and subjective responses to the organisational environment. The climate of an organisation could then be defined operationally as the sum of the perceptions of the individuals working in that organisation (Litwin & Stringer, 1968). Litwin and Stringer (1968) developed the 50 items to tap a priori scales which they felt measured the separate dimensions that constituted organisational climate. The nine scales include: (1) Structure, (2)

responsibility, (3) reward, (4) risk, (5) warmth, (6) support, (7) standards, (8) conflict and (9) identity.

The Creative Climate Questionnaire (CCQ) grew out of a research programme in Sweden during the 1980's concerning organisational conditions that stimulate or hamper creativity and innovation (Ekvall, 1990). It is a 50-item questionnaire covering 10 dimensions of five items each. The dimensions are the result of several large-factor analytic studies. The 10 factors include: (1) Challenge (the emotional involvement of the members of the organisation in its operations and goals), (2) freedom (the independence of behaviour exerted by the people in the organisation), (3) idea support (the ways new ideas are treated), (4) trust/openness (the emotional safety in relationships), (5) dynamism/ liveliness (the eventfulness of life in the organisation), (6) playfulness/humour (the spontaneity and ease that is displayed), (7) debates (the occurrence of encounters and clashes between viewpoints, ideas, and differing experiences and knowledge), (8) conflicts (the presence of personal and emotional tensions), (9) risk taking (the tolerance of uncertainty in the organisation), and (10) idea time (the amount of time people can use for elaborating new ideas).

The Situational Outlook Questionnaire (SOQ) was designed to measure perceptions of the character within an organisation. Its particular emphasis is on how attitudes, feelings and behaviours support creativity and change (Ekvall, 1996; Isaksen, Lauer, Murdock, Dorval & Puccio, 1995; Lauer, 1994). The SOQ is based on a translation of an earlier measure resulting from the research and development of Göran Ekvall. As an industrial psychologist working for Volvo in the 1950s and other large Swedish companies in the 1960s and 1970s. Ekvall observed differences in how the working atmosphere

of different companies affected the degree of participation in idea suggestion schemes (Ekvall, 1974). He developed the Creative Climate Questionnaire (CCQ) from an international program of research conducted in the 1980s (Ekvall, 1983, 1991; Ekvall & Arvonen, 1984; Ekvall, Arvonen, & Waldenstrom-Lindblad, 1983). The CCQ includes 10 dimensions of creative climate. Lauer (1994) founds theoretical support for the existence of these dimensions within the literature on creative climate. The 10 dimensions discovered by Ekvall (1983) and redefined as a result of Lauer's (1994) work provided the conceptual basis for the Climate for Innovation Questionnaire, which was an earlier version of the SOQ. Although the SOQ has already been subject to a variety of research studies (Isaksen & Kaufmann, 1990; Sobiek, 1996; Sperazini, 1997; Turnipseed, 1994), no specific evidence of its concurrent criterion-related validity is available in the published literature for this translation of the CCQ.

Milton (1981) draws the following conclusions from extensive investigations into organisation climate:

- Organisations may have multiple climates which can be affected differently by various organisational interventions, for example organisational restructuring.
- Climate is often perceived differently by top, middle and lower levels of management, indicating that changes in climate can also be differently perceived and experienced differently by these management levels.
- Evidence suggests that organisations have climates that differ from one another, meaning that climate changes will impact differently on the various organisations.
- Organisation studies have indicated clearly that climate variables influence the predictability of such aspects as employee performance, job

satisfaction and motivation. Changes in climate variables can thus also affect these aspects.

However, new measures of organisational climate will be required, to take account of the specificities, peculiarities and uniqueness of organisational environments characterising the modern organisation. Such new measures will sensibly be built on useful general measures of organisational climate just noted.

### **Role of biographical variables**

Many studies have shown that older workers are in general more satisfied than younger workers. The difference may be attributed to better adjustment at work, better conditions and greater rewards at work (Birdi et al., 1995). In Hong Kong, Siu (2001) also found that age was positively related to well being (job satisfaction and mental well being) of managers. Concerning gender, Zawacki et al. (1995) reported that male nurses tend to be more satisfied with their supervisors than female nurses; and male nurses rated the five characteristics of work (skill variety, task identity, task significance, autonomy and feedback) more meaningful and satisfying than female nurses.

Age has also been shown to be negatively related to absence frequency among hospital employees. Absenteeism is seen as resultant of a negative organisational climate. This relationship can be explained by the fact that older workers usually take up higher responsibility at work, and they will not ask for sick leave as a result of minor illness (Clegg, 1983). However, Piero et al. (1999) found that age was positively related to absenteeism. In terms of gender difference, females reported more absences than males (Clegg, 1983;

Mathieu & Kohler, 1990). Some of the reasons are that women have more health complaints and that working women have multiple roles as they are also married and/or have children.

Different people are likely to perceive the same environment differently, which leads to variation in their behavioural responses to it. Although our focus is on the consequences, rather than the antecedents, of competitive psychological climate, we note that variation in psychological climate might result from the following general influences:

- Individual differences among employees. Differences in backgrounds, personalities, and experiences can create perceptual and interpretational biases leading to different perceptions (James, James, & Ashe, 1990). For example, a salesperson who recently lost a bid for a promotion to an aggressive co-worker may perceive the organisation's climate as more competitive than a salesperson who is simply trying to do everything possible to achieve a personal sales quota.
- Different situations within the same organisation. Supervisory practices are likely to differ between different managers within the same organisation, giving rise to different perceptions of the environment. For example, some managers focus primarily on individual salespeople's progress toward their individual goals, whereas others pay close attention to competitive rankings among salespeople. Research has also shown that relationships with subordinates vary substantially even among those who report to the same manager (Dansereau, Graen, & Haga, 1975; Podsakoff et al., 1995). Salespeople who rank in the top echelon tend to enjoy privileged relationships with management, whereas others experience distant relationships (Dienesch & Robert, 1986).

- Interactions between individual differences and situational factors. The preceding types of factors may interact in ways that make their joint effects on employee perceptions greater than the combination of their individual effects (James, James, & Ashe, 1990).

## **METHOD**

### **Research design**

A cross-sectional survey design was used, whereby a sample is drawn from a population at a particular point in time. According to Shaughnessy and Zechmeister (1997), this design is ideally suited to the descriptive and predictive functions associated with correlational research.

### **Participants**

Employees in a corporate pharmacy group ( $N = 159$ ) were included in the empirical study. The study population included senior and middle managers, retail and executive pharmacists, support and administrative personnel that functions at head office and in the different branches (North West, Free State, Gauteng and Mpumulanga) of the Group.

Table 1 summarises the biographical information of the employees. The percentage of employees in each of the different groups (pertaining to race, gender, age and marital status) are given.

Table 1

*Characteristics of the Participants*

Race	Percentage	Gender	Percentage	Age group	Percentage	Marital status	Percentage
White	84,0	Female	77,3	18-20 yrs	20,7	Single	20,0
Black	15,3	Male	22,0	21-25yrs	25,3	Married	68,7
				26-30yrs	25,3	Divorced	10,7
				31-40yrs	19,3		
				41-50yrs	8,0		
Missing	,7		,7		1,3		,7
<b>TOTAL</b>	<b>100,0</b>		<b>100,0</b>		<b>100,0</b>		<b>100,0</b>

It is clear from Table 1 that the percentage of white employees and females are by far the majority. The ages of the employees are spread quite evenly between all the groups.

Table 2 summarises the work-related characteristics of the employees.

Table 2

*Work-related Characteristics of the Participants*

Years of experience	Percent	Work level	Percent	Region	Percent
0-12 months	8,0	Admin	3,3	North West	17,3
1 year-1& year 12 months	26,0	Operational	24,0	Gauteng	47,3
2 years-2 years & 12 months	18,7	Support	21,3	Mpumalanga	16,0
3 years – 4 years & 12 months	24,0	Middle Management	22,0	Free State	10,0

5 years – 10 years	23,3	Senior Management	12,0	
		“In Training”	2,7	
		Development	3,3	
Missing	0		11,14	9,3
<b>TOTAL</b>	<b>100,0</b>		<b>100,0</b>	<b>100,0</b>

Table 2 indicates the following: The majority of the employees have between one and two years of experience, while most of the employees fall between the work levels of Operational, Support and Middle Management. Very few employees are on the work level of Administration and the work levels of “In Training” and Development. Furthermore, almost half of the employees are from Gauteng (where the head office of the company is), while the others are spread quite evenly between the regions of North- West, Mpumalanga and Free State.

### **Measuring instrument**

An Organisational Climate Questionnaire (OCQ) was used as measuring instrument. Studying the literature made it clear that a number of questionnaires exist that deals directly with the issue of measuring organisational climate. The OCQ’s item pool was developed out of interplay between theory (as discussed above) and field research conducted within the corporate pharmacy group. The following dimensions (with examples of items) were included in the questionnaire: (1) Recognition and feedback (rewarding of performance), (2) management (trust towards management), (3) work relationships (strong feelings that employees are working together), (4) task characteristics (level of challenge of work to be done), (5) responsibility (employees taking responsibility for own decisions at work), (6) work pressure

(experiencing pressure to perform) and (7) decision making (no autonomous decision-making allowed) . A seven point Likert scale is used varying from 1 (*fully disagree*) to 7 (*fully agree*).

## **Procedure**

The study was initiated in March 2002 after discussions with the management team of a large pharmaceutical company in Gauteng. A literature study was done and interviews were conducted with randomly selected employees. Interviews were conducted to determine underlining themes concerning the organisational climate within the company. These themes were used to develop an organisational climate questionnaire. The Afrikaans questionnaires were developed and translated into English by language experts. A process of back-translation was followed to ensure that the meaning of the words in the different languages was the same. Next, the questionnaire was presented to experts to check for face validity and final changes were made.

Employees of the Pharmacy Group underwent Performance Management Training in September 2002 over an eight-week period. The opportunity arose to administer the questionnaires during these training sessions and all the employees who attended training at the company head office were asked to fill out the questionnaires.

## **Data analysis**

The data analysis was carried out with the help of the SAS-programme (SAS Institute, 2000). The following procedures were performed to check the construct validity of the questionnaire: Firstly, a simple principal components analysis was conducted on the items of the OCQ. The eigenvalues and scree

plot were studied to determine the number of factors. In the second step either the Oblique method with a promax rotation or a principal component analysis with a varimax rotation was used on the obtained factors, depending on whether the obtained factors were related. Descriptive statistics (e.g. means, standard deviations, measures of skewness and measures of kurtosis) were used to analyse the new data.

Cronbach alpha coefficients and inter-item correlation coefficients were used to assess the internal consistency of the measuring instruments (Clark & Watson, 1995). The alpha-coefficient conveys important information regarding the proportion of error variance contained in a scale. According to Clark and Watson (1995), the mean inter-item correlation coefficient (which is a straightforward measure of internal consistency) is a useful index to supplement information supplied by coefficient alpha. However, unidimensionality of a scale cannot be ensured simply by focusing on the mean inter-item correlation – it is also necessary to examine the range and distribution of these correlations.

One-way analysis of variance (ANOVA) and t-tests were used to determine differences between the sub-groups in the sample. Statistically significant differences between the group means were tested at a 5% significance level. The following formula was then used to determine the practical significance of differences ( $d$ ) when t-tests were used:

$$d = \frac{|Mean_A - Mean_B|}{SD_{MAX}}$$

where

$Mean_A$  = Mean of the first group;

$Mean_B$  = Mean of the second group;

$SD_{MAX}$  = Highest standard deviation of the two groups.

A cut-off point of 0,50 (medium effect, Cohen, 1988) was set for the practical significance of differences between the group means.

## RESULTS

### *Validity of the Questionnaire*

The results of an exploratory factor analysis with a varimax rotation are given in Table 3.

Table 3

*Factor Loadings, Communalities ( $h^2$ ), Percentage Variance and Covariance  
for Principal Factor Extraction and Varimax Rotation on the OCC*

Item	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>	F <sub>5</sub>	F <sub>6</sub>	F <sub>7</sub>	$h^2$
OD 41 I get enough recognition from my work	0,80	0,00	0,00	0,00	0,00	0,00	0,00	0,75
OD 26 Recognition for contribution	0,71	0,00	0,00	0,00	0,00	0,00	0,00	0,58
OD 31 Fair remuneration	0,62	0,00	0,00	0,00	0,00	0,00	0,00	0,44
OD 37 Identification with the vision of organisation	0,53	0,00	0,00	0,00	0,00	0,00	0,00	0,48
OD 27 Feedback from management	0,53	0,00	0,00	0,00	0,00	0,00	0,00	0,52
OD 23 Family feeling in the organisation	0,35	0,00	0,00	0,00	0,00	0,00	0,00	0,16
OD 36 Rewarding of performance	0,31	0,00	0,00	0,00	0,00	0,00	0,00	0,13
OD 45 Branches' level of working together	0,30	0,00	0,00	0,00	0,00	0,00	0,00	0,29
OD 13 Reward versus work input	0,47	0,00	0,00	0,00	0,00	0,00	0,00	0,39
OD 46 Negative motivational level of remuneration	0,55	0,00	0,00	0,00	0,00	0,00	0,00	0,43
OD 17 Effectiveness of management communication	0,00	0,71	0,00	0,00	0,00	0,00	0,00	0,69
OD 6 Trust of immediate management	0,00	0,65	0,00	0,00	0,00	0,00	0,00	0,49
OD 16 Management's behaviour that positively influences employees	0,00	0,63	0,00	0,00	0,00	0,00	0,00	0,51
OD 43 Trust towards management	0,00	0,56	0,00	0,00	0,00	0,00	0,00	0,71
OD 18 Clarity of expectations from management	0,00	0,56	0,00	0,00	0,00	0,00	0,00	0,54
OD 21 Easy to work with management	0,00	0,54	0,00	0,00	0,00	0,00	0,00	0,47
OD 3 Work overload and expectations from management	0,00	0,50	0,00	0,00	0,00	0,00	0,00	0,33
OD 2 Enough communication in the immediate work environment	0,00	0,40	0,00	0,00	0,00	0,00	0,00	0,35
OD 35 Autonomy of decisions without management	0,00	0,36	0,00	0,00	0,00	0,00	0,00	0,25
OD 34 Relationships between employees are good	0,00	0,00	0,76	0,00	0,00	0,00	0,00	0,64
OD 39 Strong feeling that employees are working together	0,00	0,00	0,62	0,00	0,00	0,00	0,00	0,57
OD 40 Distrust of fellow employees	0,00	0,00	0,46	0,00	0,00	0,00	0,00	0,37
OD 50 Cliques forming at work	0,00	0,00	0,48	0,00	0,00	0,00	0,00	0,32
OD 44 Relational problems in the branch / department	0,00	0,00	0,51	0,00	0,00	0,00	0,00	0,29
OD 9 Level of challenge of work to be done	0,00	0,00	0,00	0,72	0,00	0,00	0,00	0,68
OD 24 New challenges in the work to be done	0,00	0,00	0,00	0,57	0,00	0,00	0,00	0,55
OD 42 Enough energy to do work	0,00	0,00	0,00	0,37	0,00	0,00	0,00	0,38
OD 4 Work not interesting	0,00	0,00	0,00	0,61	0,00	0,00	0,00	0,43
OD 14 Boringness of work	0,00	0,00	0,00	0,74	0,00	0,00	0,00	0,65
OD 47 Employees taking responsibility for own decisions at work	0,00	0,00	0,00	0,00	0,58	0,00	0,00	0,47
OD 48 Taking responsibility when things go wrong at work	0,00	0,00	0,00	0,00	0,53	0,00	0,00	0,31
OD 33 Employees are held responsible for their decisions	0,00	0,00	0,00	0,00	0,53	0,00	0,00	0,45
OD 32 No feedback on jobs to be performed	0,00	0,00	0,00	0,00	0,35	0,00	0,00	0,48
OD 15 Experiencing pressure from Head Office	0,00	0,00	0,00	0,00	0,00	0,60	0,00	0,50

Table 3

*Factor Loadings, Communalities ( $h^2$ ), Percentage Variance and Covariance for Principal Factor Extraction and Varimax Rotation on the OCQ*

Item	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>	F <sub>5</sub>	F <sub>6</sub>	F <sub>7</sub>	$h^2$
OD 8 Having to do more than just your own work	0,00	0,00	0,00	0,00	0,00	0,47	0,00	0,29
OD 1 High amount of pressure in the branch/ department	0,00	0,00	0,00	0,00	0,00	0,43	0,00	0,33
OD 5 Experiencing pressure to perform	0,00	0,00	0,00	0,00	0,00	0,40	0,00	0,21
OD 12 Communication gaps exist between head office and the branches	0,80	0,00	0,00	0,00	0,00	0,40	0,00	0,23
OD 7 Communication gaps exist between employees and clients	0,74	0,00	0,00	0,00	0,00	0,38	0,00	0,28
OD 30 No autonomous decision-making allowed	0,71	0,00	0,00	0,00	0,00	0,00	0,57	0,43
OD 49 There is no room for autonomous decision making for employees	0,58	0,00	0,00	0,00	0,00	0,00	0,52	0,42
OD 38 Only management implement decisions that has been taken	0,57	0,00	0,00	0,00	0,00	0,00	0,45	0,23
OD 11 Uncertainty exists about the decisions employees are allowed to make	0,57	0,00	0,00	0,00	0,00	0,00	0,38	0,31
OD 25 It takes a lot of energy for employees to stay enthusiastic about work	0,57	0,00	0,00	0,00	0,00	0,00	0,36	0,42
Squared multiple correlations (SMC)	0,87	0,83	0,80	0,83	0,78	0,78	0,75	
Percentage variance	9,27	9,13	6,39	6,29	5,20	5,07	4,47	

a Factor labels: F<sub>1</sub> Recognition and Feedback; F<sub>2</sub> Management; F<sub>3</sub> Work Relationships; F<sub>4</sub> Task Characteristics; F<sub>5</sub> Responsibility;

F<sub>6</sub> Work Pressure; F<sub>7</sub> Decision-making

Table 3 shows that seven factors were extracted, accounting for 46,82% of the total variance in the data. As indicated by the SMCs, all the factors were internally consistent and well defined by the variables. Variables were also reasonably well defined by this factor solution. The values of the communalities, as seen in Table 2, tend to be moderate. This means that the items are explained moderately well by the extracted factors.

The first factor was labelled *Recognition and Feedback* and deals with the employees' perception of the way that feedback and recognition are being dealt with within the company. This includes recognition for contribution, rewarding of performance and reward versus work output. The second factor,

Table 3

*Factor Loadings, Communalities ( $h^2$ ), Percentage Variance and Covariance for Principal Factor Extraction and Varimax Rotation on the OCQ*

Item	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>	F <sub>5</sub>	F <sub>6</sub>	F <sub>7</sub>	$h^2$
OD 8 Having to do more than just your own work	0,00	0,00	0,00	0,00	0,00	0,47	0,00	0,29
OD 1 High amount of pressure in the branch/ department	0,00	0,00	0,00	0,00	0,00	0,43	0,00	0,33
OD 5 Experiencing pressure to perform	0,00	0,00	0,00	0,00	0,00	0,40	0,00	0,21
OD 12 Communication gaps exist between head office and the branches	0,80	0,00	0,00	0,00	0,00	0,40	0,00	0,23
OD 7 Communication gaps exist between employees and clients	0,74	0,00	0,00	0,00	0,00	0,38	0,00	0,28
OD 30 No autonomous decision-making allowed	0,71	0,00	0,00	0,00	0,00	0,00	0,57	0,43
OD 49 There is no room for autonomous decision making for employees	0,58	0,00	0,00	0,00	0,00	0,00	0,52	0,42
OD 38 Only management implement decisions that has been taken	0,57	0,00	0,00	0,00	0,00	0,00	0,45	0,23
OD 11 Uncertainty exists about the decisions employees are allowed to make	0,57	0,00	0,00	0,00	0,00	0,00	0,38	0,31
OD 25 It takes a lot of energy for employees to stay enthusiastic about work	0,57	0,00	0,00	0,00	0,00	0,00	0,36	0,42
Squared multiple correlations (SMC)	0,87	0,83	0,80	0,83	0,78	0,78	0,75	
Percentage variance	9,27	9,13	6,39	6,29	5,20	5,07	4,47	

a Factor labels: F<sub>1</sub> Recognition and Feedback; F<sub>2</sub> Management; F<sub>3</sub> Work Relationships; F<sub>4</sub> Task Characteristics; F<sub>5</sub> Responsibility;  
F<sub>6</sub> Work Pressure; F<sub>7</sub> Decision-making

Table 3 shows that seven factors were extracted, accounting for 46,82% of the total variance in the data. As indicated by the SMCs, all the factors were internally consistent and well defined by the variables. Variables were also reasonably well defined by this factor solution. The values of the communalities, as seen in Table 2, tend to be moderate. This means that the items are explained moderately well by the extracted factors.

The first factor was labelled *Recognition and Feedback* and deals with the employees' perception of the way that feedback and recognition are being dealt with within the company. This includes recognition for contribution, rewarding of performance and reward versus work output. The second factor,

labelled *Management*, deals with the employees' perception of the way that management conducts itself within the company. This includes the effectiveness of management communication, trust of the immediate management, the positive influence of management on the employees and the clarity in terms of the expectations from management.

*Work Relationships* is the third factor. This has to do with the employees' perception of fellow employee relationships within the company, including strong feelings that employees are working together, distrust of fellow employees and cliques forming at work. The fourth factor was labelled *Task Characteristics* and has to do with the employees' perception of the tasks that they have to perform within the company, including the level of challenge in the work to be done, the work not being interesting and enough energy to perform the work.

The fifth factor, labelled *Responsibility*, has to do with the employees' perception of their responsibility within the company. This includes the levels of responsibility given in the work to be done. The sixth factor was labelled *Work Pressure* and has to do with the employees' perception of the amount of work pressure they experience within their direct working environment, including pressure experienced from head office, having to do more work than just their own, high pressure within their specific branch or department and experiencing pressure to perform. The seventh factor was labelled *Decision-making* and has to do with the employees' perception of the decision making process within the company. This includes autonomous decision making or the lack thereof, uncertainty about decisions employees are allowed to make and only management that is allowed to implement decisions that is made.

### *Descriptive statistics*

Table 4 summarises the mean, standard deviation, measures of skewness and kurtosis, as well as the alpha coefficients, for each of the seven factors.

Table 4

*Descriptive Statistics, Alpha Coefficients and Inter-Item Correlation Coefficients*

Variable		Mean	SD	Skewness	Kurtosis	rMean	$\alpha$
Recognition and Feedback		27,64	9,03	0,15	-0,03	0,42	0,84
Management		41,44	9,32	-0,80	0,43	0,40	0,84
Work Relations		24,52	6,13	-0,38	-0,14	0,35	0,72
Task Characteristics		21,32	5,45	-0,84	0,21	0,50	0,79
Responsibility		16,99	3,59	-1,19	1,97	0,39	0,64
Work Pressure		22,94	5,66	-0,46	0,31	0,24	0,60
Decision-making		9,98	3,92	0,08	-0,54	0,29	0,55

Table 4 shows that Cronbach alpha coefficients varying from 0,55 to 0,84 were obtained for the scales. Specifically, the factors “Decisions” (0,55) and “Work Pressure” (0,60) show low alpha values. Compared to the guideline of  $\alpha > 0,70$  (Nunnally & Bernstein, 1994), the internal consistencies of the other scales are acceptable.

### *One-way analysis of variance*

The results of four different regions were compared in order to examine the differences in organisational climate amongst the regions where the company operates. These regions are Region 1 = North-West, Region 2 = Free State, Region 3 = Mpumalanga and Region 4= Gauteng.

Table 5 gives the means for each of the different regions on each of the six factors. The p-values of the hypothesis for testing equality between the means of the different regions for each of the six factors are given. A p-value smaller than 0,05 indicates significant differences between the means of at least two regions.

Table 5

*Differences between the Organisational Climate in Different Regions*

Variable	Region 1	Region 2	Region 3	Region 4	<i>p</i>	Root MSE
Recognition and Feedback	20,35 <sup>a</sup>	20,20 <sup>c</sup>	27,92 <sup>c</sup>	28,87 <sup>c</sup>	0,0001 <sup>*</sup>	8,34
Management	36,63 <sup>a</sup>	43,76 <sup>c</sup>	40,79 <sup>b</sup>	43,80 <sup>c</sup>	0,0059 <sup>*</sup>	8,99
Work Relations	18,54 <sup>a</sup>	25,96 <sup>c</sup>	24,71 <sup>c</sup>	27,60 <sup>c</sup>	0,0001 <sup>*</sup>	5,49
Task Characteristics	20,73	21,38	21,96	20,93	0,8725	5,51
Responsibility	16,92	16,52	18,04	17,00	0,3669	3,61
Work Pressure	24,85	22,03	22,33	22,80	0,1937	5,69

\* Statistically significant difference  $p < 0,05$

a Practically significant difference from region in row where b (medium effect,  $d > 0,5$ ) or c (large effect,  $d > 0,8$ ) are indicated

Table 5 shows that the mean responses of the regions regarding Recognition and Feedback, Management and Work Relations differ statistically significantly (5% significance level), while the mean responses regarding Task Characteristics, Responsibility and Work Pressure do not differ statistically significantly.

More specifically, Table 5 shows practically significant differences of medium effect between North-West and Mpumalanga regarding how they currently

view Management, as well as practically significant differences of large effect between North West and both Freestate and Gauteng concerning Management. Table 5 also shows practically significant differences of large effect between North-West and all three other regions (Free State, Mpumalanga and Gauteng) regarding Recognition and Work Relations.

The employees were divided into five groups according to the number of their years experience, in order to determine the differences in organisational climate as experienced by employees with these different “years of experience”. These groups are: Group 1 (0-12 months), Group 2 (1yr-1yr,12 months), Group 3 (2yrs-2yrs & 12 months), Group 4 (3yrs-4yrs & 9 months) and Group 5 (5-10yrs).

Table 6 gives the means for each of the different groups regarding experience on each of the six factors. The p-values of the hypothesis for testing equality between the means of the different groups for each of the six factors are given. A p-value smaller than 0,05 indicates significant differences between the means of at least two groups.

Table 6

*Differences between the Organisational Climate in Groups with Different Years Experience*

Variable		1	2	3	4	5	<i>p</i>	Root MSE
Recognition	and	28,00	30,94	27,32	27,06	24,94	0,0659	8,77
Feedback								
Management		43,00	44,39	41,79	41,06	38,31	0,0801	9,16
Work Relations		25,08	25,39	25,18	23,83	23,26	0,5478	6,18
Task Characteristics		19,92	22,03	21,64	21,33	20,57	0,7107	5,53
Responsibility		16,75	17,49	16,43	16,92	17,29	0,7950	3,62
Work Pressure		22,33	21,33	23,64	23,11	24,17	0,2574	5,68

\*Statistically significant difference  $p < 0,05$

a Practically significant difference from group in row where b (medium effect,  $d > 0,5$ ) or c (large effect,  $d > 0,8$ ) are indicated

Table 6 shows no statistically significant differences (5% significance level) between the mean responses of the different groups regarding Recognition and Feedback, Management, Work Relations, Task Characteristics, Responsibility, or Work Pressure. Therefore there are also no practically significant differences between the different groups regarding any of the factors.

Lastly, the employees were grouped according to their age, in order to determine the differences in organisational climate as experienced by employees from different age groups. These groups are: Group 1 (18-20), Group 2 (21-25), Group 3 (26-30), Group 4 (31-40) and Group 5 (41-50).

Table 7 gives the means for each of the different age groups on each of the six factors. The p-values of the hypothesis for testing equality between the means of the different age groups for each of the six factors are given.

Table 7

*Differences between the Organisational Climate in Different Age Groups*

Variable	1	2	3	4	5	<i>p</i>	Root MSE
Recognition and Feedback	26,97	27,97	26,25	30,28	27,17	0,4565	8,98
Management	42,07	41,21	41,11	43,17	39,67	0,8166	9,43
Work Relations	24,23	24,61	22,84	26,41	24,67	0,2222	6,07
Task Characteristics	19,67	21,58	22,21	21,38	20,50	0,4010	5,50
Responsibility	16,74	17,26	17,71	16,79	15,25	0,3134	3,59
Work Pressure	21,48	23,90	23,34	23,21	21,08	0,3340	5,69

\*Statistically significant difference  $p < 0,05$

a Practically significant difference from region in row where b (medium effect,  $d > 0,5$ ) or c (large effect,  $d > 0,8$ ) are indicated

Table 7 shows no statistically significant differences (5% significance level) between the mean responses of the different age groups regarding Recognition and Feedback, Management, Work Relations, Task Characteristics, Responsibility, or Work Pressure. Therefore, there are also no practically significant differences between the responses of the different age groups regarding any of the factors.

The employees were grouped according to race, where Race 1 is White and Race 2 is African or Non White (including Indian and Coloureds). Table 8

shows the results of t-tests that were performed to determine whether the mean responses of the two race groups regarding the six factors differ significantly.

Table 8

*Differences between the Perceptions of Organisational Climate by Whites and Blacks*

Item	Race 1		Race 2		<i>t</i>	<i>p</i>	<i>d</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>			
Recognition and Feedback	28,55	9,01	23,22	7,15	2,69	0,0081*	0,59 <sup>+</sup>
Management	41,34	9,58	42,57	7,83	-0,58	0,5642	-
Work relations	24,63	5,95	23,26	7,24	0,98	0,3299	-
Task characteristics	21,23	5,60	21,91	4,77	-0,55	0,5837	-
Responsibility	17,06	3,44	16,78	4,39	0,34	0,7311	-
Work pressure	22,96	5,57	22,83	6,62	0,10	0,9180	-

\*Statistically significant difference  $p < 0,05$

+ Practically significant difference –  $d > 0,50$  (medium effect)

The only statistically significant difference between the mean responses of Whites on the one hand and Blacks, Coloureds and Indians was found to be on Recognition and Feedback. The difference is also shown to be practically significant of medium effect. For all the other factors, the mean responses of Whites and Blacks did not differ significantly. The average responses of the white and non-white employees seem to be the same, except for their responses regarding Recognition and Feedback.

The employees were grouped according to gender. T-tests were also performed to determine whether the mean responses of the two gender groups regarding the six factors differ significantly. Table 9 shows the results.

Table 9

*Differences between the Perceptions of the Organisational Climate by Males and Females*

Item	Female		Male		<i>t</i>	<i>p</i>	<i>d</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>			
Recognition and Feedback	28,36	9,24	25,76	7,29	1,49	0,1386	-
Management	41,47	9,60	42,15	8,38	-0,37	0,7104	-
Work relations	24,72	5,51	23,70	8,10	0,68	0,5011	-
Task characteristics	21,12	5,70	21,88	4,82	-0,70	0,4888	-
Responsibility	16,66	3,72	18,30	2,77	-2,36	0,0194*	0,44
Work pressure	22,42	5,72	24,79	5,44	-2,12	0,0357*	0,41

\*Statistically significant difference  $p < 0,05$

+ Practically significant difference –  $d > 0,50$  (medium effect)

The mean responses of the two gender groups differed statistically significantly regarding the factors “Responsibility” and “Work Pressure”. However, the difference is not practically significant. For all the other factors, the mean responses of the two gender groups did not differ significantly.

## DISCUSSION

The aim of this study was to determine the organisational climate in a corporate pharmacy group and to compare the perceptions of organisational climate in demographic groups. In the framework of this article, climate is regarded as an attribute of the organisation, a conglomerate of attitudes, feelings, and behaviours, which characterizes life in the organisation, and exists independently of the perceptions and understandings of the members of the organisation.

In summary, climate has been established as a construct of considerable interest within the field of organisational behaviour research, predominantly as a result of its demonstrable influence on organisational effectiveness (Likert, 1961; Franklin, 1975; Kanter, 1983; Mudrack, 1989), as well as its relationship to individual motivation and behaviour (Bowers, 1976; Litwin & Stringer, 1968).

Dimensions are convenient clusters because of their suitability for measurement and seven organisational climate dimensions were extracted in this study. These factors were: (1) Recognition and feedback, (2) management, (3) work relations, (4) task characteristics, (5) responsibility, (6) work pressure and (7) decision-making.

All the factors, except for decision making and work pressure that showed low alpha values were internally consistent and well defined by the variables. Variables were also reasonably well defined by the factor solution. The values of the communalities tend to be moderate which means that the items are explained moderately well by the extracted factors. Compared to the guideline of  $\alpha > 0,70$  (Nunnally & Bernstein, 1994), the internal consistencies of the other scales are acceptable.

Literature shows that numerous authors have researched the extraction of separate dimensions of climate. Litwin and Stringer (1968) developed nine dimensions that include: (1) Structure, (2) responsibility, (3) reward, (4) risk, (5) warmth, (6) support, (7) standards, (8) conflict and (9) identity. Ekvall (1990) developed 10 dimensions that include: (1) Challenge, (2) freedom, (3) idea support, (4) trust/openness, (5) dynamism/ liveliness, (6) playfulness/humour, (7) debates, (8) ideas, (9) conflicts, (10) risk taking and

(11) idea time. Jones and James (1979) derived six dimensions of climate. Included in these dimensions are (1) leadership facilitation and support, (2) workgroup co-operation, (3) friendliness and warmth, (4) conflict and ambiguity, (5) professional and organisational spirit, (6) job challenge, (7) importance and of variety and (8) the dimension of mutual trust. It has been argued that these dimensions represent a useful method for measuring organisational climate (Ryder & Southey, 1990).

A definite comparison can be drawn between the dimensions that were extracted in this study and dimensions extracted in previous studies concerning organisational climate. Certain dimensions in other questionnaires may however cover a wider scope within the measurement of organisational climate and that might be seen as one of the shortcomings of this study. Still, the importance for this study lies in the extraction of isolating and measurable dimensions. This can be seen in three things: (1) that dimensions allow us to see climate accurately, (2) that dimensions are related to specific motivations and motivated behaviour, and (3) that changes in climate can be measured (Litwin & Stringer, 1968).

The employees in the North-West seem to differ quite strongly in opinion from the employees in the other regions, regarding recognition and feedback, management and work relations. It seems as though the employees with the four different work titles feel the same about recognition, management, work relations and task characteristics. The reason for this can be seen in what Neher (1996) perceived as organisational climate that is subject to change like an individual's mood. She went on to say that climate was affected by events and the organisation's characteristics, which in turn exerted a strong influence on the behaviour of the organisation's members and culture. As in a cycle, the

climate and individuals' responses are continually influencing one another. Over time, the climate has the capacity to convey the general psychological atmosphere of an organisation and consequently can affect the satisfaction, motivation and behaviour patterns of individuals in the workplace (Lawler, 1992).

Based on years of experience, the employees from all the different groups seem to feel the same about all the factors. This is a good indicator that years of experience cannot be seen as a determining factor of the organisational climate in this corporate pharmacy group.

The employees from all the different age groups also seem to feel the same about all the factors. The fact that more than 70% of the workforce is under the age of 30 years is worth mentioning. This is an indicator that age too cannot be seen as a determining factor of the organisational climate in this corporate pharmacy group.

The average responses of the white and non-white employees in this study seem to be the same, except for their responses regarding recognition and feedback. This might be due to the fact that different cultures experience reward and recognition differently. It might also have to do with the recognition of performance. Competitive psychological climate represents the degree to which employees perceive organisational rewards to be contingent on comparison of their performance against that of their peers (Kohn, 1992). Competition is an important aspect of psychological climate because it focuses employees' attention on the performance criteria that serve as the standards of peer-group comparison and creates demands on employees to focus their efforts on goal-related activities. There has been limited investigation of the

relation between employment and psychological well-being (including the experience of organisational climate) for Non-Whites (including black employees). Some demographic data on ethnic differences in employment are available but little research has focused on their experience of organisational climate. Available data however did not seem to indicate clearly whether and to what degree ethnicity would predict an individual's response to job characteristics like reward and recognition.

The average responses of the employees from the two gender groups seem to be the same, except for their responses regarding responsibility and work pressure. This might be due to the fact that 77,3% of the company's employees are women. 34% percent of the company's employees are in a management position of sorts and the majority thereof are women. The assumption can be made that a greater majority of employees perceive responsibility and work pressure as relevant to their experience of organisational climate. In most cases, women have to cope with outside pressures as well as work (such as housekeeping and attending to children), and these factors play a definite role in emotional well-being. Woman in most cases have to cope with outside pressures as well such as housekeeping, attending to children etc. and this plays a definite role in emotional well being.

Certain limitations regarding this research have been identified. Firstly, the empirical study only included members of a single organisation and the results thus cannot be generalised to other organisations. Secondly, the questionnaire was administered once as part of a cross-sectional survey design. Ideally a longitudinal study should have been undertaken to measure organisational climate, perhaps a year after completion of this questionnaire. Lastly, a too

small sample size was used, which might provide increased confidence that study findings would be consistent across other similar groups.

## **RECOMMENDATIONS**

In order to address the problems that were identified in the study, the following aspects must be considered: It is a well known fact that various interventions can be used that will significantly contribute toward attitude changes among employees, which in turn affects organisational climate (Donaldson, 1994; Heymans, 1997; Robbins, 1996).

Interventions that may be used by the management team of the pharmacy group could include giving feedback regarding this specific survey, management training programmes, teambuilding or business process re-engineering. Business process re-engineering (which includes organisation restructuring or change) as intervention, is an important instrument of organisation development, with the objective of making organisations more effective. This could affect employee attitudes profoundly and improve overall organisational climate. By adopting such intervention management procedures, the corporate pharmacy group might look at streamlining work processes, re-define jobs within the organisation and redesign the overall organisational structure.

Flowing out of this intervention, it should be determined by management what the nature of the difference between the opinions of the employees in North-West and the other regions are regarding recognition and feedback, management and work relations. Examining the results of the questions that dealt with these factors in more detail can do this. If the employees in North-

West are more negative than the others, the reason(s) for this need to be identified and addressed, or vice versa. It is also important to investigate in further detail the reasons for the difference in response regarding rewards and recognition between Whites and Non Whites. Continuous business process re-engineering will give management the advantage of improving the organisational climate on an ongoing basis.

Future research in this area may include investigating the specific strategies and changes implemented by management that have a profound impact on influencing the organisational climate in this corporate pharmacy group. Research in this area may also include using the questionnaire again for the same corporate pharmacy group after one or two years, to determine whether there were any changes in the results after interventions were conducted by management. More research is needed to refine the questionnaire – certain items didn't work out while new dimensions also came to the fore. It is also important to develop norms for the questionnaire. Further research is also necessary to better understand the antecedents and correlates of organisational climate in South African organisations over a broader spectrum.

## REFERENCES

- Alavi, M. & Leidner, D.E. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25(1), 107–136.
- Ashforth, B.E. (1985). Climate formation: Issues and extensions. *Academy of Management Review*, 10, 837–847.
- Birdi, K., Warr P. & Oswald, A. (1995). Age differences in three components of employee well-being. *Applied Psychology: An International Review*, 44, 345–373.
- Bowers, D. (1976). *Systems of organization*. University of Michigan, Ann Arbor, MI.
- Campbell, J.P., Dunnette, M., Lawler, E.E. & Weick, K.E. Jr. (1970). *Managerial behaviour, performance, and effectiveness*. New York: McGraw-Hill.
- Clegg, C. (1983). Psychology and employee lateness, absence, and turnover: A methodological critique and empirical study. *Journal of Applied Psychology*, 68, 88–101.
- Clark, L.A. & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7, 309–319.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (Rev. ed.) Orlando, FL: Academic Press.
- Cresswell, I. & Fisher, D.L. (1997). *A comparison of actual and preferred principal interpersonal behaviour*. Paper presented at Annual Meeting of American Educational Research Association, Chicago.
- Davenport, T.H. & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Boston : Harvard Business School Press.

- Dansereau, F., Jr., Graen, G. & Haga, W.J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behaviour and Human Performance*, 13, 46–78.
- Deer, C.E. (1980). Measuring organizational climate in secondary schools. *Australian Journal of Education*, 24, 26–43.
- Dienesch, R.M. & Robert, C.L. (1986). Leader-member exchange model of leadership: A critique and further development. *Academy of Management Review*, 11, 618–634.
- Donaldson, G. (1994). *Corporate restructuring: Managing the change process from within*. Harvard: Business School Press.
- Dorman, J.P., Fraser, B.J. & McRobbie, C.J. (1997). Relationship between school-level and classroom-level environments in secondary schools. *Journal of Educational Administration*, 35, 74–79.
- Ekvall, G. (1974). *Industriarbetanes Forbattringsideer [Improvement of industrial workers' ideas]*. Stockholm, Sweden: Personaladministrativa Radet.
- Ekvall, G. (1983). *Climate structure and innovativeness of organizations: A theoretical framework and an experiment (Report 1)*. Stockholm, Sweden: FARadet – The Swedish Council for Management and Work Life Issues.
- Ekvall, G. (1987). The climate metaphor in organization theory. In B. Bass & P. Drenth (Eds.). *Advances in organizational psychology*. Beverley Hills, CA: Sage.
- Ekvall, G. (1990). *Ideer, organisationsklimat och ledningsfilosofi*. Stockholm: Nrstedts.
- Ekvall, G. (1991). The organizational culture of idea-management: A creative climate for the management of ideas. In J. Henry & D. Walker (Eds.). *Managing innovation*. London: SAGE Publications.

- Ekvall, G. (1996). Organizational climate for creativity and innovation. *European Journal of Work and Organizational Psychology*, 5, 105–123.
- Ekvall, G. & Arvonen, J. (1984). *Leadership styles and organizational climate for creativity: Some findings in one company (Report 1)*. Stockholm, Sweden: FARadet – The Swedish Council for Management and Work Life Issues.
- Ekvall, G., Arvonen, J. & Waldenstrom-Lindblad, I. (1983). *Creative organizational climate: Construction and validation of a measuring instrument (Report 2)*. Stockholm, Sweden: FARadet – The Swedish Council for Management and Work Life Issues.
- Falcione, R., Sussman, L. & Herden, R. (1987). *Communication climate in organizations*. New York: University Press.
- Finlayson, D.S. (1973). Measuring school climate. *Trends in Education*, 30, 19–27.
- Fisher, D.L. & Fraser, B.J. (1991). School climate and teacher professional development. *South Pacific Journal of Teacher Education*, 19, 17–32.
- Forehand, G. & Gilmer, B.V.H. (1964). Environmental variation in studies of organizational behaviour. *Psychological Bulletin*, 62, 361–382.
- Franklin, J.L. (1975). Down the organization: influence processing across levels of hierarchy. *Administrative Science Quarterly*, 15, 153–64.
- Fraser, B.J., Docker, J.G. & Fisher, D.L. (1988). Assessing and improving school climates. *Evaluation and Research in Education*, 1, 109–122.
- French, W.L., Bell, C.H. & Zawacki, R.A. (1994). *Organization development and transformation: Managing effective change*. Burr Ridge, IL: Irwin.
- Friedlander, F. & Margulies, N. (1969). Multiple impacts of organizational climate and individual value systems upon job satisfaction. *Personnel Psychology*, 22, 171–183.

- Furnham, F. (1997). *The psychology of behavior at work: The individual in the organization*. Sussex, UK: Psychology Press.
- Grover, V. & Davenport, T.H. (2001). General perspectives on knowledge management: Fostering a research agenda. *Journal of Management Information Systems*, 18(1), 5-21.
- Guion, R.M. (1973). A note on organizational climate. *Organizational Behaviour and Human Performance*, 9, 120-125.
- Gupchup, G.V., Singhal, P.K., Dole, E.J. & Lively, B.T. (1998). Burnout in a sample of HMO pharmacists using the Maslach Burnout Inventory. *Journal of Managed Care Pharmacy*, 4, 495-503.
- Halpin, A.W. & Croft, D. (1963). *The organizational climate of schools*. Chicago, IL: University of Chicago, Midwest Administration Center.
- Harvey, D.F. & Brown, D.F. (1992). *An experimental approach to organization development*. Englewood Cliffs, NJ: Prentice-Hall.
- Heymans, K. (1997). *Culture versus Climate*. Unpublished MBA dissertation, University of South Africa, Pretoria.
- Isaksen, S.G. & Kaufmann, G. (1990). Adaptors and innovators: Different perceptions of the psychological climate for creativity. In T. Rickards, P. Colemont, P. Groholt, M. Parker, & H. Smeeke (Eds.), *Creativity and innovation: Learning from practice* (p.47-52). Delft, the Netherlands: Innovation Consulting Group TNO.
- Isaksen, S.G., Lauer, K.J., Murdock, M.C., Dorval, K.B. & Puccio, G.J. (1995). *Situational outlook questionnaire: Understanding the climate for creativity and change (SOQ™) – A technical manual*. Buffalo, NY: Creative Problem Solving Group.
- James, L.R., Demaree, R.G. Mulaik, S.A. & Ladd, R.T. (1992). Validity generalization in the context of situational models. *Journal of Applied Psychology*, 77, 3-14.

- James, L.R., James L.A. & Ashe, D.K. (1990). The meaning of organizations: The role of cognition and values. In B. Schneider (Eds.). *Organizational climate and culture* (p. 40– 84). San Francisco: Jossey-Bass.
- James, L.R. & Jones, A.P. (1980). Perceived job characteristics and job satisfaction: An examination of reciprocal causation. *Personnel Psychology*, 33, 97–135.
- James, L.R. & Tetrick, L.E. (1986). Confirmatory analytic tests of three causal models relating job perceptions to job satisfaction. *Journal of Applied Psychology*, 71, 77–82.
- Jones A.P. & James L.R. (1979). Psychological climate: Dimensions and relationships of individual and aggregated work environment perceptions. *Organizational Behaviour and Human Performance*, 23, 201– 250.
- Joyce, W.F. & Slocum, J.W. Jr. (1982). Collective climate: Agreement as a basis for defining aggregate climates in organizations. *Academy of Management Journal*, 12, 87–121.
- Kanter, R.M. (1983). *The change masters*. New York: Random House.
- Kohn, A. (1992). *No contexts: The case against competition*. Boston: Houghton-Mifflin.
- Lawler, E.E. (1992). *The Ultimate Advantage*. Jossey-Bass, San Francisco.
- Lauer, K.J. (1994). *The assessment of creative climate: An investigation of Ekvall's Creative Climate Questionnaire*. Unpublished master's thesis, State University College, Buffalo, NY.
- Likert, R. (1961). *New patterns of management*. New York: McGraw-Hill.
- Litwin, G.H. & Stringer, R.A. (1968). *Motivation and organizational climate*. Boston: Harvard Business Press.

- Mathieu, J.E. & Kohler S.S. (1990). A test of the interactive effects of organizational commitment and job involvement on various types of absence. *Journal of Vocational Behaviour* 36, 33–44.
- Middlemist, R.D. & Hitt, M.A. (1981). Technology as a moderator of the relationship between perceived work environment and subunit effectiveness. *Human Relations*, 6, 517–32.
- Milton, C.M. (1981). *Human behaviour in organisation: Three levels of behaviour*. Englewood Cliffs, NJ: Prentice-Hall.
- Moos, R.H. (1981). *Manual for Work Environment Scale*. Palo Alto, CA, Consulting Psychologist Press.
- Moran, E.T. & Volkwein, J.F. (1992). The cultural approach to the formation of organizational climate. *Human Relations*, 45(1), 19–47.
- Mouton, J. & Marais, H.C. (1992). *Basiese begrippe: Metodologie van die geesteswetenskappe*. Pretoria: RGN.
- Mudrack, P.E. (1989). Group cohesiveness and productivity: A closer look. *Human Relations*, 42, 771–85.
- Mullins, L. (1989). *Management and organizational behaviour*. London: Pitman.
- Naylor, J.C., Pitchard, R.D. & Ilgen, D.R. (1985). *A theory of behaviour in organizations*. New York: Academic Press.
- Neher, W.W. (1996). *Organizational communication: Challenges of change, diversity and continuity*. Toronto, Canada: Allyn and Bacon.
- Nunnally, J. & Bernstein, I.H. (1994). *Psychometric theory* (3<sup>rd</sup> ed.). New York: McGraw-Hill.
- Payne, R. & Pugh, D.S. (1976). Organizational structure and climate. In M.D. Dunnette (Ed.). *Handbook of industrial and organizational psychology* (p. 1125–1173). Chicago, IL: Rand McNally.

- Piero, J.M., Gonzales-Roma, V., Lloret S., Bravo, M.J. & Zurriaga, R. (1999). Predictors of absenteeism among public health services employees. In P.M. Le Blanc, M.C.W. Peeters, A. Bussing & W.B. Schaufeli (Eds.), *Organizational psychology and health care* (p. 85–100). Rainer Hampp Verlag, Munchen: European Contributions.
- Podsakoff, P., Scott M., Aheqrne, M. & Bommer, W. (1995). Searching for a needle in a Haystack: Trying to identify the illusive moderators of leadership behaviour. *Journal of Management*, 21, 422–70.
- Powell, G.N. & Butterfield, D.A. (1978). The case for subsystem climates in organizations. *Academy of Management Review*, 3, 80–94.
- Robbins, S.P. (1996). *Organisational behaviour: Concepts, controversies, applications* (7<sup>th</sup> ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Ryder, P.A. & Southey, G.N. (1990). An exploratory study of the Jones and James organizational climate scales. *Asia Pacific Human Resources Management*, 8, 45–52.
- SAS Institute. (2000). *The SAS System for Windows Release 8*. Cary, NC: SAS Institute Inc.
- Schein, E.H. (1985). *Organizational culture and leadership: A dynamic view*. San Francisco: Jossey-Bass.
- Schneider, B. (1975). Organizational climate: An essay. *Personnel Psychology*, 23, 447–479.
- Schneider, B. & Bartlett, C.J. (1970). Individual differences and organizational climate II; measures of organizational climate, by the multi-trait, multi-rater matrix. *Personnel Psychology*, 23, 493–512.
- Shaughnessy, J.J. & Zechmeister, E.B. (1997). *Research methods in psychology* (4<sup>th</sup> ed.). New York: McGraw-Hill.
- Siu, O.L. (2001). Organisational climate and psychological distress among general and psychiatric nurses in Hong Kong. In J. de Jonge, P. Vlerick, A.

- Bussing & W.B. Schaufeli (Eds.), *Organizational psychology and health care at the start of a new millennium* (p. 39–54). Rainer Hampp Verlag, Meiring.
- Situation Report (1997). South Africa's antenatal results give mixed messages. *AIDS Analysis Africa*, 9, 1–2.
- Sobieck, M.A. (1996). *Examination of cross-site narrative responses on the CIQ and SOQ*. Unpublished master's thesis, State University College, Buffalo, NY.
- Speranzini, G.D. (1997). *Understanding the impact of a climate intervention: Debriefing the Situational Outlook Questionnaire (SOQ)*. Unpublished master's thesis, State University College, Buffalo, New York.
- Stern, G.G. (1970). *People in context*. New York: Wiley.
- Sverke, M. & Hellgren, J. (2002). Job insecurity: Understanding employment uncertainty in the brink of the new millennium. *Applied Psychology: An International Review*, 51, 23–42.
- Thomas, A.R. & McTaggart, E.A (1983). Organizational climate in Catholic schools: the development of a concept. *Australian Journal of Education*, 17(1), 78–93.
- Turnipseed, D. (1994). The relationship between the social environment of organizations and the climate for innovation and creativity. *Creativity and Innovation Management*, 3, 184–195.
- Veldsman, F.H.J. (1995). *Die invloed van enkele biografiese veranderlikes op die werknemer se persepsie van organisasieklimaat en organisasieverbondenheid*. Unpublished master's thesis, University of Pretoria, Pretoria.
- Zawacki, R.A., Shahan, R. & Carey, M. (1995). Who has higher job satisfaction. Male or female nurses? *Nursing Management*, 26, 54–55.

## **CHAPTER 3**

### **CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS**

In this chapter conclusions to the research are discussed. The general and specific objectives of this study are included in the discussion of the conclusions. The limitations to the study are highlighted in this chapter, where after recommendations are made in terms of the resolving of pertinent problems, as well as future research.

#### **3.1 Conclusions**

The objective of this study was to assess the organisational climate in a corporate pharmacy group and to compare the perceptions of organisational climate in demographic groups. Another objective was to validate an organisational climate questionnaire for use in a corporate pharmacy group.

Concerning the objective **to determine the organisational climate in a corporate pharmacy group** the following. The literature made it clear that a number of questionnaires already existed that deals directly with the issue of measuring organisational climate. Because of the aim of this study an Organisational Climate Questionnaire (OCQ) was devised. The item pool of the OCQ was developed out of interplay between theory and field research conducted within the corporate pharmacy group.

According to Litwin and Stringer (1968) the climate of an organisation could be defined operationally as the sum of the perceptions of the individuals working in that organisation. While formally established guidelines as to the

key elemental components of climate are yet to find universal acceptance, the explanatory powers of the concept lie in its potential to conceptually link organisational and individual behavioural phenomena (Falcione et al., 1987; Moran & Volkwein, 1992). It is this promise that has attracted researchers to attempt to operationalise and quantify climate. A number of researchers, including Jones and James (1979), Middlemist and Hitt (1981) and Joyce and Slocum (1982) have argued in favour of a multi-dimensional approach to the issue of measurement.

Besides characteristics it was important to look at different dimensions of organisational climate. Examples of dimensions used in measuring organisational climate include structure and constraint, individual responsibility, warmth and support, reward and punishment, conflict, dimensional inter relationships, and risk and risk taking (Litwin & Stringer, 1968). Structure variables studied in relation to the climate dimensions within the corporate pharmacy group have been: recognition and feedback, task relational, management, responsibility, work pressure, decisions and task characteristics.

**Concerning the validation of an organisational climate questionnaire for use in a corporate pharmacy group** the following: In this study internal validity on a contextual level was secured by the conceptualisation of organisational climate as defined in the literature. External validity on a universal basis was secured by selecting subjects within a single organisation and using all available employees of the organisation for the research.

Dimensions are convenient clusters because of their suitability for measurement and seven organisational climate dimensions were extracted in

this study. The first factor was labelled *Recognition and Feedback* and deals with the employees' perception of the way that feedback and recognition are being dealt with within the company. The second factor, labelled *Management*, deals with the employees' perception of the way that management conducts itself within the company.

*Work Relationships* is the third factor. This has to do with the employees' perception of fellow employee relationships within the company, including strong feelings that employees are working together, distrust of fellow employees and cliques forming at work. The fourth factor was labelled *Task Characteristics* and has to do with the employees' perception of the tasks that they have to perform within the company, including the level of challenge in the work to be done, the work not being interesting and enough energy to perform the work.

The fifth factor, labelled *Responsibility*, has to do with the employees' perception of their responsibility within the company. The sixth factor was labelled *Work Pressure* and has to do with the employees' perception of the amount of work pressure they experience within their direct working environment, including pressure experienced from head office, having to do more work than just their own, high pressure within their specific branch or department and experiencing pressure to perform. The seventh factor seven was labelled *Decision-making* and has to do with the employees' perception of the decision making process within the company.

All the factors except for decision-making and work pressure that showed low alpha values were internally consistent and well defined by the variables. Variables were also reasonably well defined by the factor solution. The values

of the communalities tend to be moderate which means that the items are explained moderately well by the extracted factors.

The following conclusions can be made regarding the **perceptions of organisational climate in demographic groups**. Many studies have shown that older workers are more satisfied than younger workers. The difference may be attributed to better adjustment at work, as well as better conditions and greater rewards at work (Birdi et al., 1995). In Hong Kong, Siu (2001) also found that age was positively related to well-being (job satisfaction and mental well being) in managers. Concerning gender, Zawacki et al. (1995) reported that male nurses tend to be more satisfied with their supervisors than female nurses; and male nurses rated the five characteristics of work (skill variety, task identity, task significance, autonomy and feedback) more meaningful and satisfying than female nurses. Age has also been shown to be negatively related to absence frequency among hospital employees. Absenteeism is seen as a consequence of a negative organisational climate. This relationship can be explained by the fact that older workers usually take up higher responsibility at work, and they will not ask for sick leave as a result of minor illness (Clegg, 1983). However, Piero et al. (1999) found that age was positively related to absenteeism. In terms of gender difference, females reported more absences than males (Clegg, 1983; Mathieu & Kohler, 1990). Some of the reasons are that women have more health complaints and that working women have multiple roles as they are also married and/or have children.

Different people are likely to perceive the same environment differently, which leads to variation in their behavioural responses to it. Although our focus is on the consequences, rather than the antecedents, of competitive

psychological climate, we note that variation in psychological climate might result from the following general influences:

- Individual differences among employees. Differences in backgrounds, personalities, and experiences can create perceptual and interpretational biases leading to different perceptions (James, James, & Ashe, 1990).
- Different situations within the same organisation. Supervisory practices are likely to differ across different managers within the same organisation, given rise to different perceptions of the environment.
- Interactions between individual differences and situational factors. The preceding types of factors may interact in ways that make their joints effects on employee perceptions greater than the combination of their individual effects (James, James, & Ashe, 1990).

The employees in the North-West seem to differ quite strongly in opinion from the employees in the other regions, regarding recognition and feedback, management and work relations. It seems as though the employees with the four different work titles feel the same about recognition, management, work relations and task characteristics. Over time, the climate has the capacity to convey the general psychological atmosphere of an organisation and consequently can affect the satisfaction, motivation and behaviour patterns of individuals in the workplace.

Based on years of experience, the employees from all the different groups seem to feel the same about all the factors. This is a good indicator that years

of experience cannot be seen as a determining factor of the organisational climate in this corporate pharmacy group.

The employees from all the different age groups also seem to feel the same about all the factors. The fact that more than 70% of the workforce is under the age of 30 years is worth mentioning. This is an indicator that age too cannot be seen as a determining factor of the organisational climate in this corporate pharmacy group.

The average responses of the white and non-white employees in this study seem to be the same, except for their responses regarding recognition and feedback. This might be due to the fact that different cultures experience reward and recognition differently. It might also have to do with the recognition of performance. There has been limited investigation of the relation between employment and psychological well-being (including the experience of organisational climate) for Non-Whites (including black employees). Some demographic data on ethnic differences in employment are available but little research has focused on their experience of organisational climate. Available data however did not seem to indicate clearly whether and to what degree ethnicity would predict an individual's response to job characteristics like reward and recognition.

The average responses of the employees from the two gender groups seem to be the same, except for their responses regarding responsibility and work pressure. This might be due to the fact that 77,3% of the company's employees are women. The assumption can be made that a greater majority of employees perceive responsibility and work pressure as relevant to their experience of organisational climate.

### **3.2 Limitations**

Certain limitations regarding this research have been identified. Firstly, the empirical study only included members of a single organisation and the results thus cannot be generalised to other organisations. Secondly, the questionnaire was administered once as part of a cross-sectional survey design. Ideally a longitudinal study should have been undertaken to measure organisational climate, perhaps a year after completion of this questionnaire. Lastly, a too small sample size was used, which might provide increased confidence that study findings would be consistent across other similar groups.

### **3.3 Recommendations**

#### **3.3.1 Recommendations to solve the research problem**

In order to address the problems that were identified in the study, the following aspects must be considered: It is a well known fact that various interventions can be used that will significantly contribute toward attitude changes among employees, which in turn affects organisational climate (Donaldson, 1994; Heymans, 1997; Robbins, 1996).

Interventions that may be used by the management team of the pharmacy group could include giving feedback regarding this specific survey, management training programmes, teambuilding or business process re-engineering. Business process re-engineering (which includes organisation restructuring or change) as intervention, is an important instrument of organisation development, with the objective of making organisations more

effective. This could affect employee attitudes profoundly and improve overall organisational climate. By adopting such intervention management procedures, the corporate pharmacy group might look at streamlining work processes, re-define jobs within the organisation and redesign the overall organisational structure.

Flowing out of this intervention, it should be determined by management what the nature of the difference between the opinions of the employees in North-West and the other regions are regarding recognition and feedback, management and work relations. Examining the results of the questions that dealt with these factors in more detail can do this. If the employees in North-West are more negative than the others, the reason(s) for this need to be identified and addressed, or vice versa. It is also important to investigate in further detail the reasons for the difference in response regarding rewards and recognition between Whites and People of Colour.

Continuous business process re-engineering will give management the advantage of improving the organisational climate on an ongoing basis.

### **3.3.2 Recommendations for future research**

Future research in this area may include investigating the very specific strategies and changes implemented by management that has a profound impact on influencing the organisational climate in this corporate pharmacy group. Research in this area may also include using the questionnaire again for the same corporate pharmacy group after one or two years, to determine whether there were any changes in the results after interventions were conducted by management. Future research needs to be done to refine the

questionnaire – certain items didn't work out while new dimensions also came to the fore. It is also important to do further research so as to determine norms for the questionnaire. One of the shortcomings at the moment is the fact that no norms exist against which the questionnaire can be measured against. Future studies can also be done to determine what correlation exists between organisational climate and variables such as job satisfaction, job performance and turnover..

Research is also necessary to better understand the antecedents and correlates of organisational climate in South African organisations over a broader spectrum.

## REFERENCES

- Birdi, K., Warr P., & Oswald A (1995). Age differences in three components of employee well-being. *Applied Psychology: An International Review*, 44, 345–373.
- Clegg, C. (1983). Psychology and employee lateness, absence, and turnover: A methodological critique and empirical study. *Journal of Applied Psychology*, 68, 88–101.
- Donaldson, G. (1994). *Corporate restructuring: Managing the change process from within*. Harvard: Business School Press.
- Falcione, R., Sussman, L. & Herden, R. (1987). *Communication climate in organizations*. New York: University Press.
- Heymans, K. (1997). *Culture versus climate*. Unpublished MBA dissertation, University of South Africa, Pretoria.
- James, L.R., James L.A. & Ashe, D.K. (1990). The meaning of organizations: The role of cognition and values. In B. Schneider (Eds.). *Organizational climate and culture* (p. 40–84). San Francisco, CA: Jossey-Bass.
- Jones A.P. & James L.R. (1979). Psychological climate: Dimensions and relationships of individual and aggregated work environment perceptions. *Organizational Behaviour and Human Performance*, 23, 201– 250.
- Joyce, W.F. & Slocum, J.W. Jr. (1982). Collective climate: Agreement as a basis for defining aggregate climates in organizations. *Academy of Management Journal*, 12, 87–121.
- Kohn, A. (1992). *No contexts: The case against competition*. Boston, MA: Houghton-Mifflin.
- Litwin, G.H. & Stringer, R.A. (1968). *Motivation and organizational climate*. Boston, MA: Harvard Business Press.

- Mathieu, J.E. & Kohler S.S. (1990). A test of the interactive effects of organizational commitment and job involvement on various types of absence. *Journal of Vocational Behaviour* 36, 33–44.
- Middlemist, R.D. & Hitt, M.A. (1981). Technology as a moderator of the relationship between perceived work environment and subunit effectiveness. *Human Relations*, 6, 517–32.
- Moran, E.T. & Volkwein, J.F. (1992). The cultural approach to the formation of organizational climate. *Human Relations*, 45(1), 19–47.
- Piero, J.M., Gonzales-Roma, V., Lloret S., Bravo, M.J. & Zurriaga, R. (1999). Predictors of absenteeism among public health services employees. In P.M. Le Blanc, M.C.W. Peeters, A. Bussing & W.B. Schaufeli (Eds.). *Organizational psychology and health care* (p. 85-100). Rainer Hampp Verlag, Munchen: European Contributions.
- Robbins, S.P. (1996). *Organisational behaviour: Concepts, controversies, applications* (7<sup>th</sup> ed.). Englewood Cliffs, NJ: Prentice Hall.
- Siu, O.L. (2001). Organisational climate and psychological distress among general and psychiatric nurses in Hong Kong. In J. de Jonge, P. Vlerick, A. Bussing & W.B. Schaufeli, W.B. (Eds.). *Organizational psychology and health care at the start of a new millennium* (p. 39–54). Rainer Hampp Verlag, Meiring.
- Zawacki, R.A., Shahan, R. & Carey, M. (1995). Who has higher job satisfaction. Male or female nurses? *Nursing Management*, 26, 54–55.